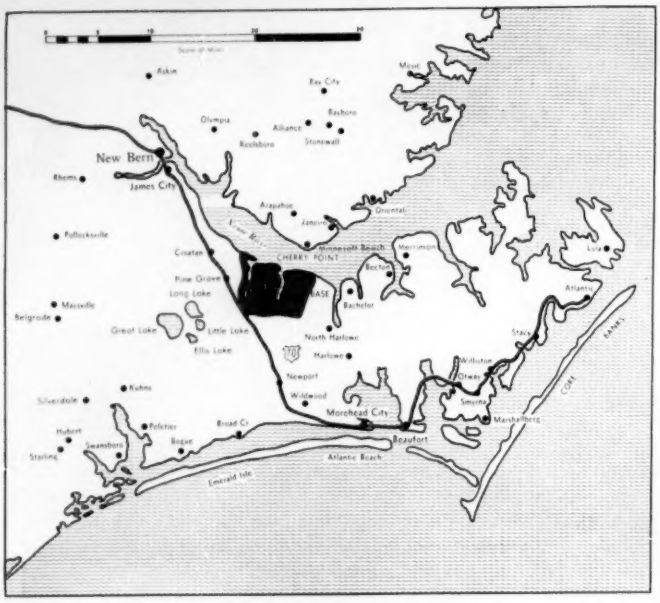
Marine Corps Gazette

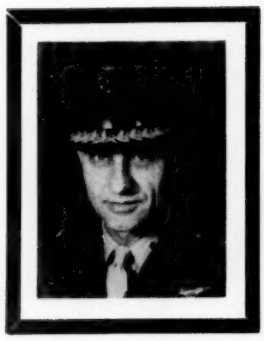
MARCH 1960
FORTY CENTS

CHERRY POINT

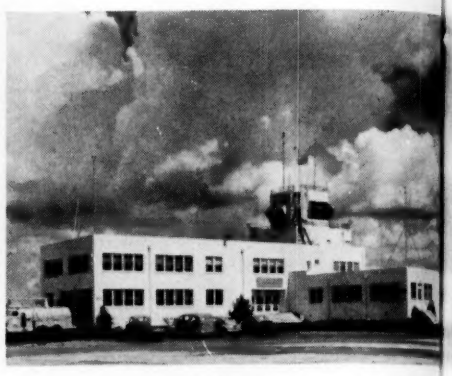


MCAS, Cherry Point, N. C.

Cover painting by Pfc Guy Corriero



BGen R. K. Rottet
ComMCABEast



Control Tower

Key to Places on Cover

Ammunition Dump	4.5—C.4
Boat Docks	6.3—B.9
Control Tower	3.5—B.7
Heliport	5.8—A.9
Enlisted Capehart	4.0—C.5
Ft. Macon Village (Housing)	1.7—C.3
Golf Course	6.4—B.3
Hdqts. Building MCAS & 2dMAW	3.0—C.2
Hancock Village (Housing)	2.2—B.9
MAG-24 Area	3.1—B.9
Main Gate	2.0—C.5
MWHG Hangars	3.8—B.9
Rendezvous	2.0—C.6
Rifle Range	4.4—B.3
Slocum Village (Housing)	2.5—C.5
Station Hospital	3.7—C.2
Theater	3.1—C.2
Wing Supply Building	3.8—B.9

Main Gate to Air Station

Station Chapel

Marine Corps 1960

Professional Notes & Comment

An unofficial digest of news of interest to the Marine Corps

Navy League

Seapower Symposium Spotlights Corps' Role

► What: Fourth Annual Seapower Symposium.
► When: 1-3 March, 1960.
► Where: Sheraton-Park Hotel in Washington, D. C.
► Why: To brief Navy League members—often called the "civilian arm of the Navy"—on the latest word about fighting limited wars.

The Marine Corps is supplying the "who" and the "how." Theme of the Symposium: Amphibious Warfare. Cast: The Marine and his weapons, and the full panoply of Naval Seapower.

► An address by Gen David M. Shoup closes the two-day Amphibious Warfare presentation portion of the program. The first day of the Symposium has been set aside for viewing of industrial and military exhibits of equipment used in amphibious operations. Exhibits are open to the public.

► The Commandant's remarks follow a two-part drama by MCS, Quantico's MCEC and MCLFDC for an expected 2,000 Navy League members and guests.

Education Center planners are unfolding an Advance Base Problem showing what happens if, and when, trouble brews in Sirocco. Tactics and techniques of the Landing Force in handling brushfires from the word go is being presented.

Part Two—Trends in Amphibious Warfare—produced by MCLFDC,

(See Seapower next page)

What's It All About

The first Navy League Seapower Syposium was held in 1957 when Regulus II was unveiled to the public. In 1958, Polaris was in the spotlight. Last year's theme was anti-submarine warfare.

This year, in recognition of Marine Corps Activity Groups within the Navy League on national levels, Amphibious Warfare was selected.

Commenting on the selection, Harold E. Wirth, President of the District of Columbia Council of Navy League, said this:

"High mobility of today's specialized Marine assault troops . . . together with the Navy's fleet assures the US of a potent amphibious force to establish successful landing operations anywhere in this nuclear age."

Attendance at Symposiums is limited to Navy League members and their guests. However, exhibits by industry and the military—this year featuring amphibious hardware—are open to the public for one day.

A formal dinner in which all the Armed Forces host honored guest Congressman Carl Vinson climaxes the 1960 Seapower Symposium.

Frank G. Jameson
Navy League President

Projecting the Fight

Due to report 15 Mar are HQMC committees reviewing "the concept" for 1970. Headed by BGen W. J. Van Ryzin, the committees are looking at amphibious concepts and USMC organization for the 1969-1973 time period.

► Reason: Planners must say now how we'll fight in the future to get key R&D programs started, keep them on the track.

Doctrine, too, takes time to develop.

► Some upcoming equipment to be considered for future use:

For delivery this spring and summer—

- New, lighter M386 launchers (4) and heli-liftable XM-33 launchers (2) for each HAR (Honest John) Battery.
- Emerson's heli-liftable AN/KPQ-1 countermortar radar.

► "Into the hands of troops in FY 1961 (production and the budget permitting)". That's the prediction for these R&D headliners—

- Davy Crockett — the man-portable, low-yield atomic launcher.
- Redeye—the one-man AA missile.
- Hawk — the heli-liftable, low-level missile.
- The M14 rifle and M60 MG.

All hands won't get this new hardware. First comes troop test with limited amounts. New small arms, for example won't reach all hands until 1964.

► Nearing completion of R&D phase are several new vehicles, radars, radios, and other comm devices. New, but far from procurement is a .22cal training version of the M14 rifle. Made by Harrington & Richardson, it has hinged butt-plate, takes M3 bipod and bayonet.

Not included in HQMC's "shopping list" for next few years: Little John or LaCrosse.

► Possible next phase after committee reports have been staffed: a new look at present organization to see if it's headed right.

Fire Drills

Ability of US to douse two brushfires at once with seapower will meet test this month as Navy-Marine air-ground teams maneuver on opposite sides of the world.

► Southern Taiwan is objective for Seventh Fleet's Chinese and US Marines in EXERCISE BLUE STAR (PACPHIBEX 31-60). LtGen T. A. Wornham, CG FMFPAC, will command I MEF, composed of 3dMarDiv, 1stMAW, Force Troops. 1stMarBrig provides ground Aggressors, 1stMAW and 1st FAW, air. CHINATS Navy, Marines, and AF units will join. Included: FIREX, rehearsal, nine days ashore. Tentative D-Day: 22 March.

(See Fire Drills next page)

Unveiled, explained for Navy League members are weapons and equipment used by or supporting the fire team—basic unit of the Landing Force. Marines at top left are armed with new M-14 rifle, M-60 machine gun. Top right is the latest in combat surveillance gear—AN/TPS-21. Fire team at left model anti-mine boots, body armor, ballistic helmet. Above: what the well-dressed, well-equipped fire team may be wearing in 1970.

Seapower

follows on 3 March.

Weapons and equipment developers are running the gamut in both new and old; weapons coming on, those actually on hand. Standing in the spotlight via film clips, slides and static display: the Marine and his hardware —Cobra, transportation, support, Redeye, Hawk.

For the man himself: body armor, armored boots, a new, lightweight helmet. He is carrying an M-14 rifle, backed with the M-60 machine gun.

Latest in communication and detection devices are to be unveiled.

Previewed: the fundamental unit of a future amphibious striking force, a fire team, circa 1970.

Air is in the picture. How SATS has helped solve the problem of getting Landing Force aircraft ashore. Helicopters—the big boost in speed and maneuverability—get a quick review and preview . Marines are unwrapping a do-it-yourself helicopter (Hiller) that folds up for mass transportation, 16 to a single GV-1 transport.

A high-speed drama with grim undertones of realism is slated. Accent is on mobility, key to the modern doctrine.

Briefly, here's the message this year's Symposium carries: The Marine/Navy team has a "certain something" no one else can match.

Fire Drills

► Simultaneously, 11,000 miles away, 22 March is beginning of LANTPHIBEX 1-60, at Onslow Beach. VADM G. C. Towner is CATF; LtGen J. C. Burger commands 2dMAGTF, with 2d MarDiv, 2dMAW, and Force Troops participating. Exercise ends 5 Apr.

► Although these are two largest simultaneous exercises, they are not most far-flung. Testifying before Senate Armed Services Committee, the Commandant noted that on that day (22 Jan) these exercises were in progress:

- BLT en route VIEQUES
- Rcn & Arty at 29 Palms
- Arty at Fuji-McNair, Japan
- BLT at CWTC, Bridgeport
- MAG at SUBIC BAY, P.I.
- VMF at GUANTANAMO BAY, Cuba.

► Within a few days Thailand was added to list, which in past year has included: Korea, Taiwan, Borneo, Alaska, as well as most countries touching the Med.

Troop News

► Recruits marked for aviation will go through individual combat training at ITR before specialist schools. Part of the April boot crop is affected. Beginning in May, all will be. Only exception: Avn 6-mo trainees.

► Marine fire teams will be sighting in this month on new plexiglass pop-up targets. Good for 5,000 hits, they won't waterlog and short out circuits. Curved, they have a 4-in depth, allow more flanking action. Hopes are to replace them with a three-dimensional plastic "Aggressor."

► Marine Corps remains firm in stressing know-distance firing as step one and the transition range as step two. However, squad competition through "technique of fire" will be pushed and more ranges built. Wanted: a good name for the course.

► Marksmanship with other weapons will be stressed, too. One promising device is the Flender Polydrive moving target. Completely mobile on a jeep-towable trailer, this device can zig-zag 32 targets as fast as 22 mph. It's good for all direct fire weapons, from MGs to tanks, artillery. A simple, rugged arrangement of a motor, winches, and cables, it was developed by the German Army before WWII.

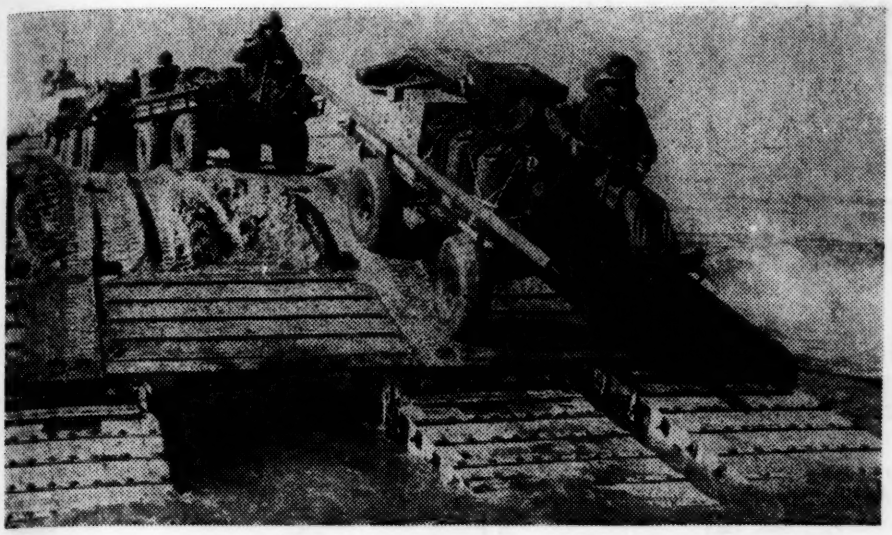
► Hardworking, longtime taken-for-granted DIs are getting a break. After a study, CGs at Parris Island and San Diego have been authorized to boost one grade a percentage of their best drill instructors.

Allowed percentages for each recruit depot are based on strength aboard:

Cpl to Sgt	9%
Sgt to SSgt	4%
SSgt to GySgt	2%

► Commanding Officers have been asked to push the Prep School program to likely candidates for Annapolis.

Primary consideration: True motivation for a *career* as an officer. Ref: MCO 1531.8.



1st Marines hit beach in first '60 Exercise

1stMarDiv Throws First '60 Beach Party

1st Marines' two reinforced BLTs went about their work quietly as the California sun rose 15 February. They hit CamPen's Red and White Beaches, 5000 strong, kicking off Operation SWAN DIVE—a two-pronged amphib assault to grab and hold Case Springs.

Strong coastal winds and high surf delayed landings two days. SWAN DIVE, year's first major field exercise, was set to end 19 February, 15th anniversary of another landing—Iwo Jima.

Except for swoosh of 3d Wing support aircraft the landing was quiet. There was no naval gunfire; no radio.

Navy's UDT-12 cleared off-shore obstacles. Two rifle companies spearheaded the synchronized landing of each BLT.

Among support units:

► Field Artillery Group—1/11; 4/11 along with 1stCMR Section; 1st 155mm HowBtry; Co A,, 3dAmTracBn. Group CO: LtCol R. N. Aufmann.

Others:

► 1stMTBn; 1stTkBn; 1stForReconCo; 1stReconBn; 1stMedBn; 1stAntiTkBn; 1st Light Support Co; 2d Landing Support Co; 1stFSR; 1stAmTracCo.

► Strong counter-attacks came from LtCol K. C. Greenough's tank-equipped 2/7 Aggressors.

► Landing Forces and Aggressors were supported by Col A. T. Barnum's MAG-36 helicopters. CamPen's MCALF simulated an aircraft carrier.

Switcheroo

Operation Big Switch has the green light. Here's the Corps' stand on transfer of regular, reserve officers on EAD to *respective* components of the Army, Navy and Air Force:

► Requests for transfer out of USMC need among other things:

- Reason for request
- Statement of professional qualifications
- Contingent resignation

A complete list is in MCO 1301.13A.

► On the other side of the coin:

- USMC will not take transferees above the rank of captain except with okay of CMC.
- Too, transfers into USMC may go to 1) Basic School, if first lieutenant or below 2) to Junior School, if captain.

Fitness Reporting

CMC order (1611.3) putting the squeeze on officers' fitness reports precludes officers reported on seeing the finished product. Unless, of course, report contains material "considered unsatisfactory."

Other major provisos:

► Reporting seniors' handwritten remarks in Section D must balance outstanding or unsatisfactory mark in Section 16.a.

► Section D must include number of officers reported on that period, how many were marked what under "general value to the service." Not affected: SNCOs.

Delivery has begun of the Mighty Mite for troop test. American Motors 1750-pound midget will reach 1st and 2dMarDivs by end of May, 3dMarDiv by mid-summer. Each division gets 65 of the vehicles, which feature a lightweight, V-4 air-cooled engine. Aluminum has been used wherever possible in chassis and transmission. Development was sparked by Marine Corps interest, beginning in 1951, in helicopter-transportable vehicles.

Miscellany

► A new recruiting aid: a motion picture on the care, handling and history of the US flag. Recruiters should get it by 1 April.

► Under study: a sweeping realignment of Marine Corps photography, G-3 has formed an "adhoc" committee.

Here loading for shipment to Camp Lejeune's Peterfield Point is the Corps' first portable 3-D radar. Designed for tactical field use it gives range, altitude, bearing of approaching planes or missiles. This AN/MPS-21, built by Sperry Gyroscope, can be quickly delivered by transport planes, helicopters or truck—even landing craft. It detects enemy aircraft higher and farther away than any tactical system. Component parts are transported in the field on self-contained pallets. An 18-man crew can erect antenna, generators, shelter, inflatable radome in a few hours.

Marine Corps 1960

Research & Development

Horsepower

Motor transport experts at MCEB have been able to double the weight-carrying capabilities of Willys' 1-ton commercial-type Jeep. The extra tonnage puts the now-available vehicle in line as an interim item while more work goes into the Convertible Mule.

USMC stays abreast of the program to standardize small, industrial-type gasoline engines. A 1½hp engine, first of a new military family of air-cooled engines, has successfully passed tests at MCLFDC. Next test will be of the 3hp size. Engines of six different small horses will eventually replace 78 different sizes and types. Parts for all are interchangeable.

In The Air

Sylvania is finishing tests on its Universal Digital Operational Flight Trainer. First trainer will be delivered this month to the Navy's Training Device Center, Port Washington, NY. Flexible, UDOFT can simulate more than one aircraft. This means several students can receive simultaneous instruction. It simulates the F9F-2 .

BuWep's Engineering Materials Laboratory has come up with a new way to prevent in-flight engine failures. Lab tests on samples of engine oil identify metals present which in turn pinpoint wear. Silver in the oil means a faulty bearing; chromium, cylinder wall damage; aluminum, piston failure.

Comm-Electronics

A field teletype is finding new use for the packboard. It's the "Mite," which works on the juice of its own long-life battery, or the DC system of any vehicle. MCLFDC is running tests on the portable printer which is light enough to be carried by packboard. It gives as well as takes 100 words per minute.

USMC is keeping an eye on the AN/GRC-53, a new mobile, multi-channel radio. One third smaller, one half lighter than standard gear, the new set can carry, at the same time, 12 different conversations. The set comes complete with power supply, antenna, cabling. It's mounted on ¾-ton truck.

Easier, faster wire-laying by air is possible with the M-8C dispenser developed by the Signal Corps. In one test an H-19 Chickasaw helicopter laid four miles of telephone wire at a mile-a-minute clip.

Shelter

Atlantic Research Corporation is testing a plastic-foam shelter which can be rigged in minutes, ready for tenants in an hour. It's formed by spraying plastic foam over an inflated canvas shell. It's designed for field use. Set up, it resembles an igloo.

Fashions

A sample *wound* is being offered by Britain's Browning's Ltd. Made of soft, washable plastic the device is described as a perfect wound replica, touted as a must for realistic field training. A letter plus three shillings to 69 Aberdeen St., Yorkshire, will bring details, sample.

Chemical Front

A dosimeter which uses powder instead of film to measure radiation has been developed by three NRL scientists. Twenty times more sensitive than film, the special calcium fluoride powder is embedded in a glass disc worn around the neck. The new device is reusable, cheap, easy to read.

A Marine-modified smoke generator designed by ACC is being probed by MCLFDC. So far, it has been found to "out-smoke" ten 105mm smoke shells. It will help tank retrievers recover damaged vehicles in front-line areas.

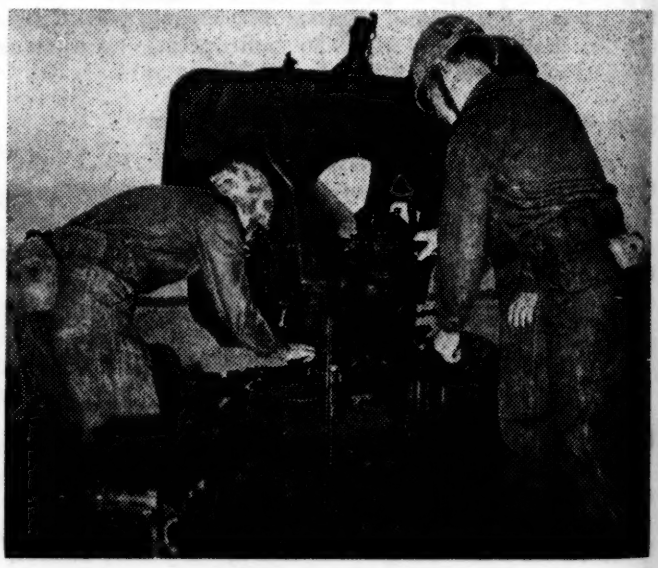
Missiles

The Navy's mobile IRBM — Polaris — landed squarely on target (give or take a few yards) each of the last four times it has been test fired, reports *missiles and rockets.*

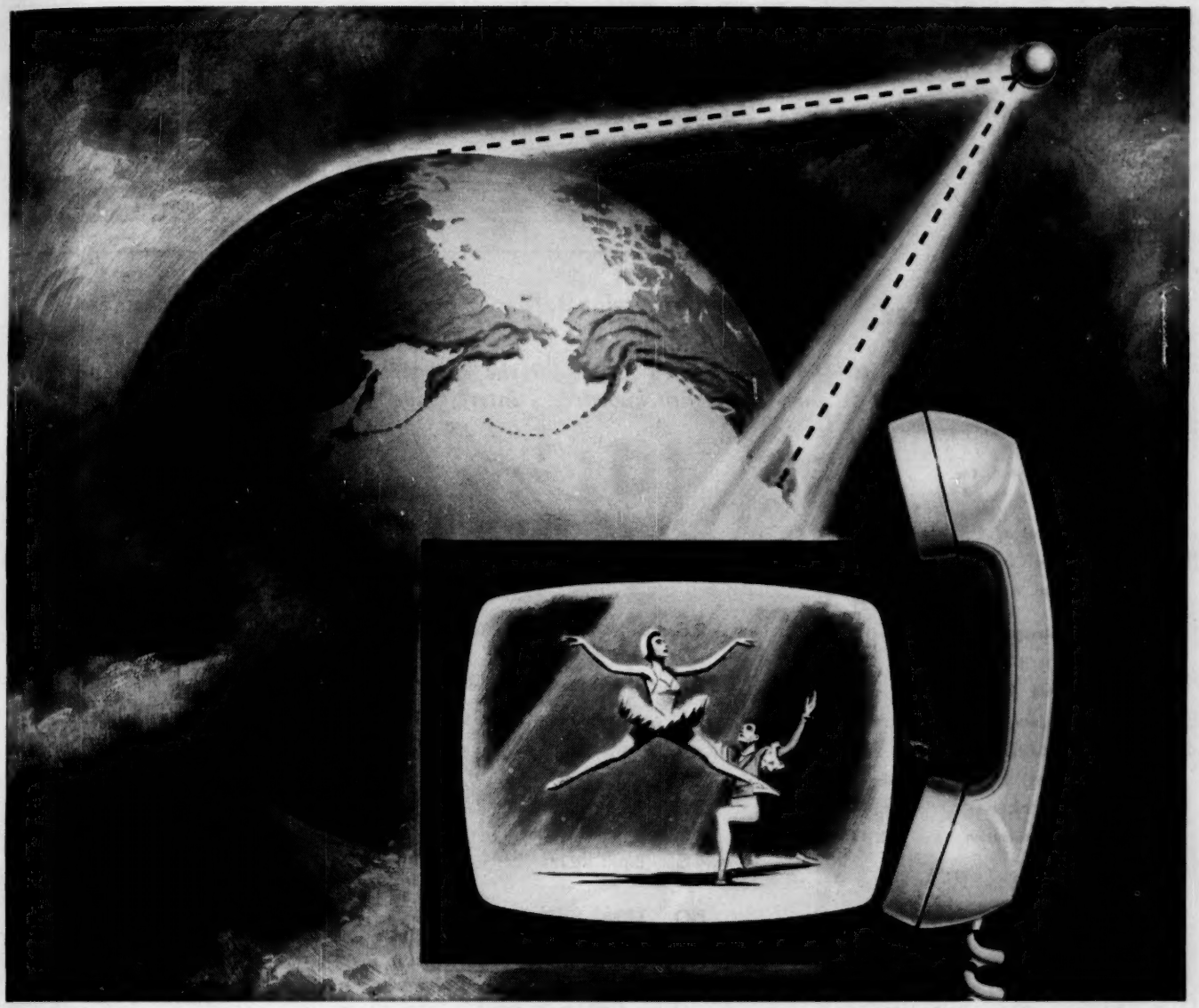
Now greater accuracy, despite heavy sea conditions, is promised by General Electric's fully transistorized shipboard fire control system. The Navy's first such, it's going aboard nuclear submarine *USS George Washington.*

Foreign Born

Tests of a potential interim weapon from abroad —Hotchkiss-Brandt 120mm mortar have been completed by MCLFDC. The French product competed with Howtar and the standard 4.2-in mortar. Results of the test are under wraps.



Meanwhile, another interim weapon, the Italian 105mm pack howitzer, got its fire baptism by MCLFDC at Quantico on 19 February. More tests are slated for the West Coast.



The high frequency radio waves that carry telephone and television signals travel in straight lines and refuse to follow the earth's curvature. To overcome this, it may well be practical and economical to send them over long distances by using earth satellites as relay points.

Telephone Calls and TV Shows by Way of Outer Space?

Under construction in foreground is a new antenna which Bell Telephone scientists hope will receive signals reflected from earth satellites during forthcoming tests. Background: a Project Echo transmitting antenna.

Maybe some day you'll get phone calls from Brisbane or Bombay—live TV from Caracas or Copenhagen—via satellites!

Over the years imaginative research has vastly improved your Bell Telephone service.

Now Bell scientists are looking ahead to an extraordinary possibility, until recently only dreamed of: the sending of telephone calls and TV across oceans via earth satellites.

To explore this idea, Bell Telephone Laboratories scientists are presently working hard on the communication phase of Project Echo. This experiment, sponsored by the National Aeronautics and Space Administration, seeks to reflect radio and voice signals across the U. S. by means of a 100-foot satellite.

Recently these scientists relayed a human voice from New Jersey to California via one familiar satellite, the moon, and also sent a signal several hundred miles by means of an aluminized balloon.

Many features of the telephone service we take for granted today once sounded as improbable as this. But working always on the frontier of science is one of the ways we make that service more convenient, economical and enjoyable for you.

BELL TELEPHONE SYSTEM

MARCH 1960
VOLUME 44
NUMBER 3

40¢

ADVERTISERS' INDEX

Bell Helicopter Corporation	63
Bell Telephone System	5
Borg-Warner Corporation, Ingersoll-Kalamazoo Division	27
Chance Vought Aircraft, Inc.	10, 11
Fenestra, Inc.	9
First National Bank of Quantico	67
Lockheed Aircraft Corporation	45
Lycoming Division, Avco Corporation	24, 25
Marine Corps Association	Cover III
Navy Federal Credit Union	66
Navy Mutual Aid Association	65
Pepsi Cola Company	7
Quantico Auto Sales, Inc.	67
Raytheon Company	12, 13
Standard Brands, Inc.	61
Vertol Aircraft Corporation	42, 43

Advertising Representative: Shannon & Associates Inc., New York (28 West 44th Street), Chicago, Atlanta, Cleveland, Detroit, Los Angeles and San Francisco. Printed at 32d Street and Elm Avenue, Baltimore 11, Md.

Opinions expressed in the Gazette are those of the authors. They do not necessarily reflect the attitude of the Department of the Navy nor of Headquarters, United States Marine Corps.

Copyright 1960 by the Marine Corps Association. Entered as second class matter at the Post Offices at Quantico, Va., and Baltimore, Md. All pictures are official Department of Defense photos unless otherwise credited. All reprint rights reserved.

Editor in Chief BGen W. R. Collins. **Editorial Board** Col O. R. Simpson, Col R. M. Baker, Col W. P. Baker, Col A. A. Elder, LtCol N. D. Glenn, LtCol H. L. Beckington, Maj H. L. Alderman. **Editor and Publisher** LtCol T. N. Greene. **Business Manager** Maj A. S. Baker. **Managing Editor** Maj. H. Preston. **Promotion Manager** F. T. Stolley. **Art Director** AMSgt John DeGrasse. **Features Editor** AMSgt Joe Dodd.

Marine Corps Gazette

Professional Magazine for United States Marines

Published by the Marine Corps Association in order to provide a forum for the expression of matters which will advance knowledge, interest and esprit in the Marine Corps.

IN THIS ISSUE

14	The Seas Are Our Strength	*Hanson W. Baldwin*
26	Soviet Amphibious Teachings	*A Translation*
28	Report from the Ready Forces: 2dMAW Part One—Constant Readiness Part Two—Programs to Improve Readiness	
36	Your Troops Want Better Training	*ASSgt James W. Rider*
46	Esprit de Marine	*Maj James C. Gasser*
50	MCA—Its Formation and Objects	*A Reprint*
54	Support by Fire (Part IX) Training the Force in Readiness	*LtCol T. N. Greene*

DEPARTMENTS

Marine Corps 1960		The Marine Reserve	49
Professional Notes & Comments	1	Extension School Challenge	52
Research & Development	4	Salty Skipper	53
Leaders of the Corps	69	Sergeant Major's Mail	59
Message Center	8	Passing in Review	60
The Thinking Tiger	44	Observation Post	64

Published by the Marine Corps Association (a non-profit, unofficial organization)
Box 1844
Quantico, Va.
Regular members: US Marine officers, SNCOs (Reg, Res, Ret).
Associate members: loyal US citizens
Allied members: Officers of US allies.
Rates: 1-yr $4; 2-yr $7; 3-yr $9.50; foreign mail add $1.
Free Gazette Writer's Guide on request giving rates, style, procedures.

Welcome

Enjoy yourself. Have a Pepsi.
Any sociable occasion calls
for the light refreshment
preferred by today's trim,
active people.

PEPSI-COLA

**Be Sociable,
Have a Pepsi**

Refresh without filling

MESSAGE CENTER

For letters of professional interest. Length: up to 250 words. Rates: up to $20.

Remind and Rededicate

. . . December saw the end of another Marine Corps Association Month and its annual membership drive. Commanding officers have submitted their reports of membership to the CMC in accordance with MCO 1000.3A. Therefore "officially" we have completed this project." But have we?

I fear Association membership effort may have fallen into the same rut as government-supported charity drives. I intend no derogation to these charities. Still, I sincerely hope Marine commanders, officers, and non-commissioned officers don't consider our Association, our GAZETTE, and our vent for professional expression as a charity —something we must endorse because CMC monitors our interest.

This past year's statistics on membership are not yet available, but I would bet they could be higher.

Why don't we have a larger membership —more interest in our profession and the discussion of it? Basically the big selling point for the Association is the GAZETTE and its monthly free expression and exchange of ideas—the sounding board for all of the pros, NCO through general.

During the recent membership drive all of us heard these dissenting glittering generalities: "I don't want to read a historical magazine;" "I can get the same information free in Marine Corps directives and publications;" "I'm tired of supplementing a few persons' income;" "The material is good reading but I can't use it in light of current dictum;" and so on.

Possibly each point is or has been true. But wherein lies the blame? Surely not alone with the few who have the duty of putting the magazine together. They couldn't possible write the whole issue. The responsibility lies with all of us whom the Association is trying to reach—we who are the professional core of the Corps. Certainly we don't want a steady diet of popular or obscure history. Nor do we want only prose versions of HQMC dictates. What we and the editorial board want is just what the editorial policy of the GAZETTE states, ". . . the professional improvement of Marines everywhere."

All GAZETTE readers, subscribers or no, should be encouraged to beat the drum for the NEW GAZETTE. The January issue must have raised the eyebrows of even our most die-hard gripers. This drum beating should by no means overlook the new rates for articles, especially the short, humorous and quick-hitting ones.

Let's use every means to sell our magazine and our Association throughout the year. Let's get away from the annual-fund-drive type of thinking currently clouding so many minds.

The annual Association Month is for reminding and rededicating ourselves.

Capt MacDonald Greer
Camp Lejeune, N. C.

Modern Fire Planning

. . . Having rassled with fire plans and coordination as a FO and as a member of the Division FSCC and various intermediate points, I believe that LtCol Greene (*FSCC: Who's in Charge*, GAZETTE: Jan '60) has pointed out some serious defects in our methods. He offers a good solution.

The rapid, timely exchange of accurate information is of greater value than any grandiose FSCC.

It is probably impossible to compute the infinitesimal odds of hitting a jet aircraft in flight with artillery, mortar, or naval gun fire excepting atomic or VT fuzed projectiles. Restrictive fire plans as we know them must be discarded or their use curtailed.

Forwarding of fire plans for "coordination and approval" from battalion to regiment to Division to ad nauseam can be halted or greatly reduced. Very few fire plans need to be reviewed in detail. Messengers stumbling through darkened CPs delivering fire plans can be a thing of the past. Use of normal communication channels should suffice.

Maj D. D. Girard
NROTC Unit
Vanderbilt Univ.

Framing the Sheriff

. . . Three cheers for CWO Koontz for his item on the beret (GAZETTE: Jan '60). Let me be the first to agree with him.

Just the other day, a deputy sheriff here in southern Iowa was asking me how he could obtain a Marine Corps frame cap. As the gunner says in his letter, everyone is wearing them these days.

I am as much against continuous uniform changes as any Marine, but this is something we have needed for a long time. I hope this will not be the only letter on this subject; that all those who agree (or disagree) will let themselves be heard.

SSgt J. R. Fry
MCRSS, Ottumwa, Ia.

21 Days In the Field

. . . I would like to add my hearty endorsement to Maj Victor A. Salvo's suggestion in the Jan OBSERVATION POST that individual training be combined with requalification firing in an annual three week training period. I have long felt that this is the ideal solution for Marines on independent duty, on specialized assignments (such as technicians and mechanics), and on clerical and staff duty. A three-week individual training period would train Marines while disrupting day-to-day operations the least.

Maj C. R. Kennington
741 N. Van Dorn
Alexandria, Va.

Kickback

. . . Col Boris d'Adamovitch Leliwa, in the Jan issue of the GAZETTE, maligns my first love—the '03. So it kicks. So what? A horse kicks but we ride him. Because a rifle kicks should we stop firing it? An emphatic *No*.

As far as being a foot shorter than contemporary weapons of its day: US Marines did a fair-to-middlin' job at Belleau Wood with Springfields and bayonets. Further, the basic .30-.06 Mauser action of the Springfield, and the length of its barrel are reasons hunters and most target shooters consider it the best all-round, most versatile of modern weapons.

I lament the passing of the '03, although the need for increased firepower precludes keeping a bolt action rifle for the armed forces. Withal, the King is dead, long live the King.

Capt T. L. Curtis
211 Cass St.
Springfield, Mass.

Voice of a Free Conscience

. . . Since joining the MCA, and enjoying my own GAZETTE instead of the office copy, my conscience is free in sending these comments about the January issue:

MSgt Crumb's article *What It Means to be a Marine* is being referred to every prospect who wishes to join our battery. About MSgt Crumb: He is (or was) the epitome of the Marine NCO. His readers will be interested to know that his articles are a manifestation of how he conducted himself 24 hours a day—a devoted, loyal and professional Marine who truly inspired those who served with him.

LtCol Greene's *FSCC: Who's in Charge* may cause more controversy than our going to Korea. I'm a cannon-cocker with a professional interest in FSC. This may lead to taking pen in hand and responding—either rebut or agree—in about 2,000 words of my own.

Capt Mark P. Fennessy
I&I, 4th 155mm HowBtry
Raleigh, N. C.

Stirring Musty Files

. . . Most members of the Marine Corps Association joined the Corps during or after WWII.

I, for one, would like to see outstanding articles reprinted from the GAZETTE from the period prior to this.

Much military writing is never dated. Maybe the winners of the Essay Contests would be a good place to start. Especially interesting to me, would be far sighted prophecies that came about.

AMSgt J. P. Driver
Indianhead, Md.

The Crystal Ball

. . . It was with much interest that I read Capt Newton's *Micro-Electronics for the Modern Doctrine* (GAZETTE Jan '60). Such lucid items do much to keep the professional Marine informed of how new technological advances will affect *him* and his military capabilities.

Of particular interest, however, is the fact that the material in the article was *already technically obsolescent by the time it appeared in print.* Such is the rate of scientific progress!

The illustrations accompanying the article show tiny plastic wafers, each containing several circuit components (resistors, capacitors, inductor). A number of these

(Continued on page 11)

A package of Airfield . . .

The 12 Fenestra aluminum panels in this package won't make an airfield . . . but along with other packages of the panels, rapidly laid down and bolted, they form the heart of the Marine Corp *SATS! They build an airfield quickly and efficiently in remote areas . . . the Marine expeditionary airfields vital to support Marines ashore. More . . . after the objective is seized the airfield can pack up to accompany the next assault.

**Small Airfields for Tactical Support*

Made by Fenestra Incorporated

• FENESTRA Incorporated

Manufacturers of:

Fenestra Fenlite Steel Windows

—

Fenestra Hollow Metal Doors

—

Fenestra Acoustical-Structural Building Panels

—

Fenestra Steel Curtain Walls

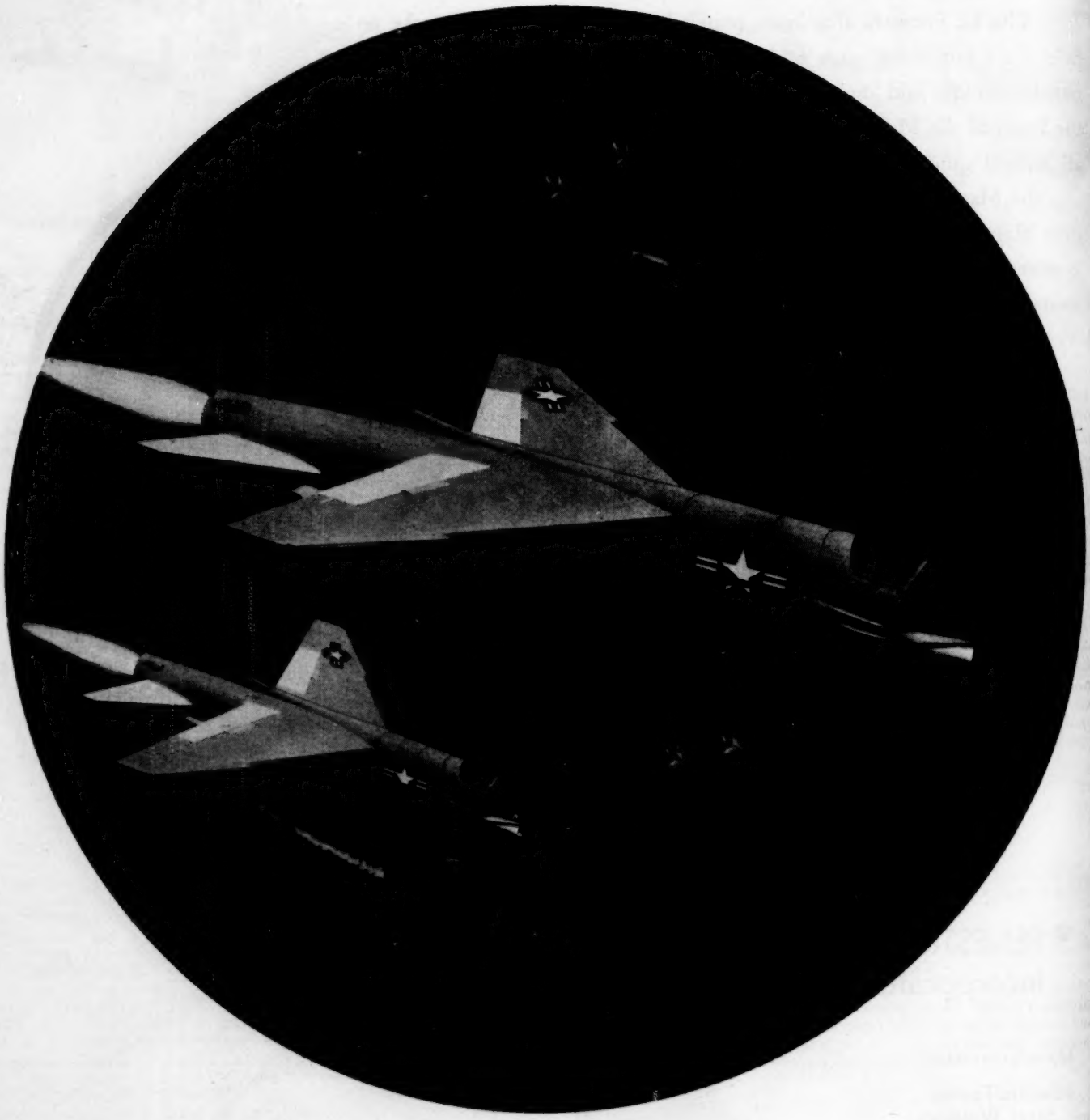
—

Fenestra Aluminum Windows & Curtain Walls

• FENESTRA Incorporated

2252 East Grand Blvd., Detroit 11, Mich.

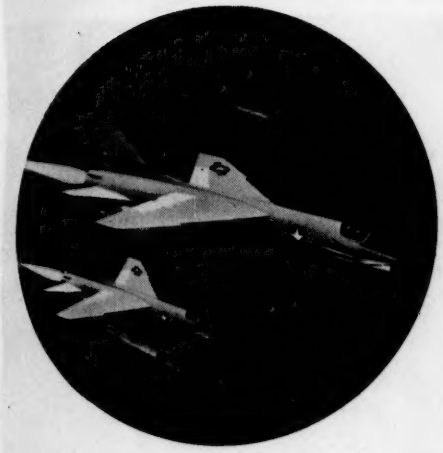
GLOBE-ILITY



Yesterday they were 700 miles away. Today these Navy carrier task force ships and jets are at the scene of trouble to back up U. S. policy. They came equipped to air-land Marines, win air superiority, or launch a nuclear blow. Few bases are so formidable in so many ways. No force is more active in increasing its reach and reaction speed by means of new weapon systems. None is better suited for guarding the vast and scattered resources which form the Free World's strength.

AERONAUTICS · ASTRONAUTICS · ELECTRONICS · GENESYS CORP. · RANGE SYSTEMS · RESEARCH

CHANCE VOUGHT
DALLAS, TEXAS



VOUGHT AERONAUTICS – MAINTAINING THE FLEET'S MARGIN OF POWER

1921 . . . The Navy's first commissioned aircraft carrier is equipped with seaworthy fighters. 1945 . . . Advanced Navy fighter tallies 11-to-1 "kill" ratio over enemy aircraft in two years of World War II combat. 1955 . . . Navy equipped with world's first seaborne attack missile. 1958 . . . New fighter brings 1,000-plus-mph striking speed to Navy carriers.

These milestones in the advancement of naval power were established by the Navy with Chance Vought aircraft or missiles. Each weapon system gave the Navy a new capability, then went on to give years of distinguished service. Vought Aeronautics' insight into advanced Navy requirements keeps this tradition alive and is helping the Navy keep its Fleets effective forces for peace.

All-weather Crusader

Vought Aeronautics is meeting today's requirements with the F8U-2N *Crusader*. This fourth refinement of the original *Crusader* fighter has improved aids for detecting and destroying targets at night or in bad weather. Its speed is near twice that of sound. This year the all-weather F8U-2N will join the Fleet and the more than 500 *Crusader* fighters and photoplanes already in service.

Long range air-to-air missiles

Vought Aeronautics, meantime, is looking ahead. A new concept – the long range air-to-air missile – is under close study. As part of a complete naval weapon system, these missiles will be a potent "next step" in upgrading our seaborne offense and defense.

Piloted aircraft, along with atmospheric missiles and antisubmarine warfare, are the specialties of Chance Vought's Aeronautics Division. Other major interests are being aggressively advanced in the company's Astronautics, Electronics, Range Systems, and Research Divisions.

CHANCE VOUGHT
DALLAS, TEXAS

(Continued from page 8)

wafers are assembled into a "micro-module" ½ inch square x 1/16 inch thick. These can act as an amplifier, oscillator, etc.

Previous efforts in this field, including the micro-modular techniques, have been to continually reduce the size of the components. Now an entirely new concept has been announced. Germanium and silicon crystals are alloyed and grown in such a manner that they can act as the entire circuit. The internal action of the electrons and other sub-atomic particles is substituted for conventional components in such a way that a single, tiny bit of semi-conductor material performs the overall circuit function. Variations which can be produced are virtually limitless.

If micro-modules have reduced a cigar-box size amplifier down to the volume of a box of matches, this new technique shows promise of further reducing it down to the size of the head of one of the matches in that box.

Capt Newton's fine article speaks of the gain in miniaturization in going from 60,000 to 600,000 components per cubic foot. New techniques in molecular electronics have raised the density to the equivalent of *100 million* components per cubic foot.

Not only can we have hopes for fantastically small electronic gear, but for greatly increased realiability. For a very high proportion of the inter-component connections, a frequent source of trouble, are eliminated when the components themselves no longer exist.

Col E. S. Maloney

MCLFDC, MCS
Quantico, Va.

Ed: In its 8Feb60 issue Missiles and Rockets *told of a $2-million program by Westinghouse to develop more of these basic systems which perform overall circuit functions. First on the list: a molecularized radio receiver. And* The Wall Street Journal *front-paged "clever crystals" 26Jan60, stating that other US firms are moving ahead with methods similar to those of Westinghouse.*

Also, interest in molectronics is evident abroad. A British firm has come up with a molectronic device which equals 50-million components per cubic foot. This is as high as anything done in the US except for an RCA unit claimed equal to 100 million components. Apparently, this is the one referred to in Col Maloney's letter.

More Help For Paperwork

. . . Efforts to simplify small unit administration as pointed out by LtCols MacAskill and Juett in *Machine Help for Your Paperwork* (GAZETTE: Jan '60) will undoubtedly be an important contribution to the solution of the perplexing problem: "How effective can a fighting unit be if its key elements are taken up with administrative details?"

Their proposals are equally valid for use in ships and squadrons, and probably in business organizations. Administrative streamlining through the adoption of modern methods could easily result in the long-hoped-for reduction in paperwork.

Easier preparation of routine reports should result in an equivalent manpower saving. I do not believe that the success of the embossing technique will result in a production of more paperwork. Paperwork results from difficulties in communicating ideas and data to each other, not from the characteristics of the machinery involved.

Lt D. P. Kirchner

USN Postgraduate School
Monterey, Calif.

The College Try

. . . How's this for selling the USMC to the high caliber young men we want and need? Send the GAZETTE to college—or even to high school.

With little effort or cost MCA members could forward their copies of the magazine when finished with them to their alma maters.

Placed in school libraries, the GAZETTE would make excellent reference material for essays and, at the same time, carry the Marine Corps message to thousands of potential applicants.

My GAZETTES are going to the high school I graduated from 20 years ago.

1stSgt A. B. Kouma

MS&M Bn, 1stFSR(-)FMF
Camp Pendleton, Calif.

Pioneers! O Pioneers

. . . I had forgotten that free Uniform prints go with each three-year MCA membership renewal. This unexpected gift will make a fine addition to any study or office. New subject:

Extinction of the Mastodon (OBSERVATION POST: Feb '60) states in part: "The weapon itself will weigh no more than a few tons, will carry a crew of two or three, protected by armor only against small arms fire. Armament will be rockets or recoilless guns. . . ."

If Mr. Wiseley was trying to describe principal features of Ontos, he could have hardly done a better job. Is it possible that with Ontos, USMC has once again pioneered a field (as with the LVT and helicopter?)

Maj R. E. Sullivan

MCEC, MCS
Quantico, Va.

Easy to Digest

. . . I like your new section on MARINE CORPS 1960. It gives the important news in a nutshell.

Have you ever considered printing digests or extracts of articles from other military journals? For example, the February issue of *Military Review*, published by the US Army Command and General Staff College at Ft. Leavenworth, contains several pieces of interest to Marines.

A General Staff for America in the Sixties by one of their faculty members is quite interesting. There is another one called *From the Ocean to the Drop Zone* which proposes that Army airborne battle groups be permanently assigned on *Essex* and *Forrestal* class carriers as a floating force-in-readiness.

It says, "Studies have been made of the engineering problems; they appear to be fairly easy to overcome." I believe extracts of articles like these would be of interest to many.

1stSgt E. D. Knight

ForTrps, FMFLant
Camp Lejeune, N. C.

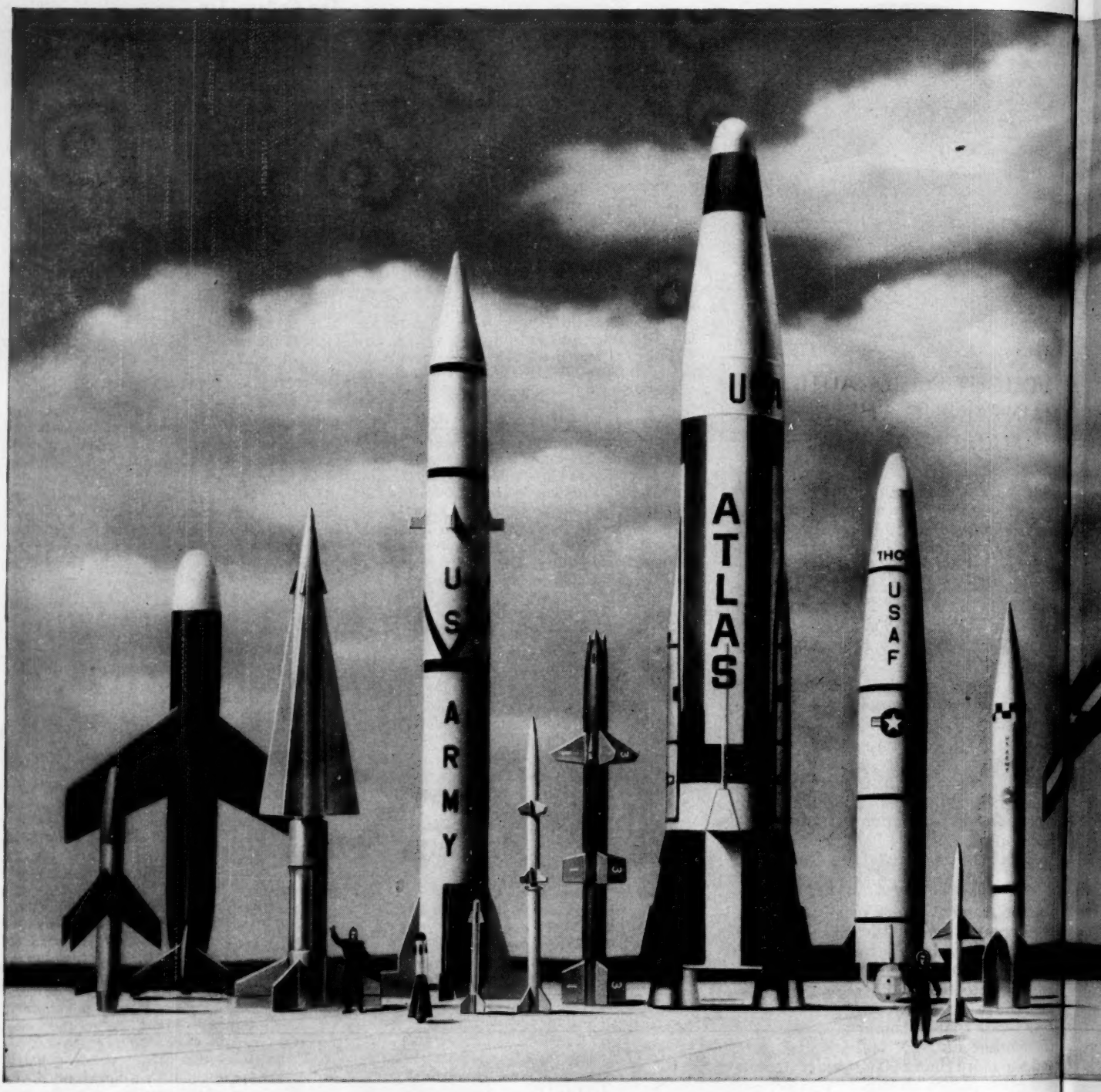
Encore

. . . Would like another article similar to *Tong Yong Operation* (GAZETTE: Dec '59).

2dLt W. A. Nash

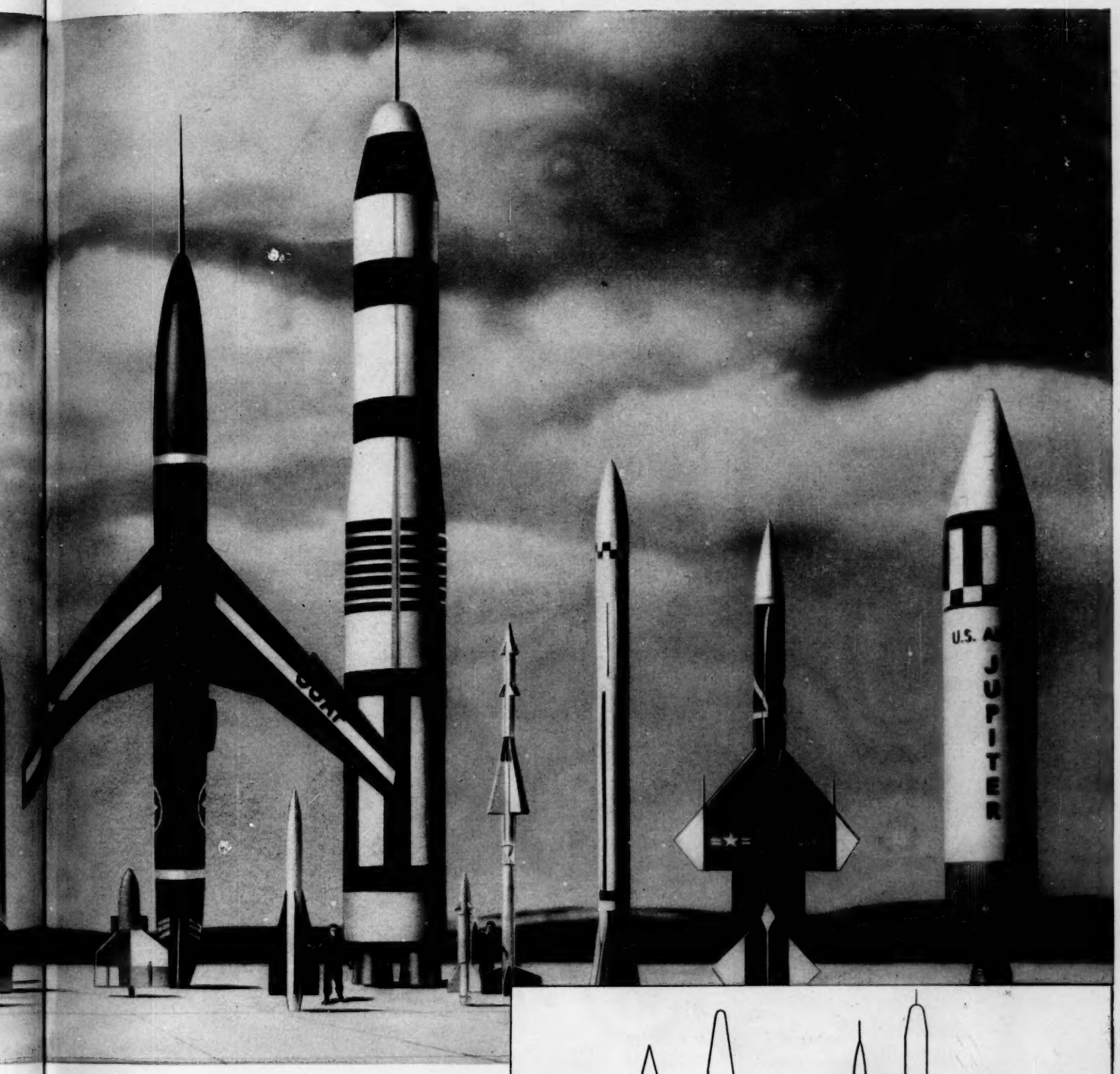
Co "D" Basic School
MCS, Quantico, Va.

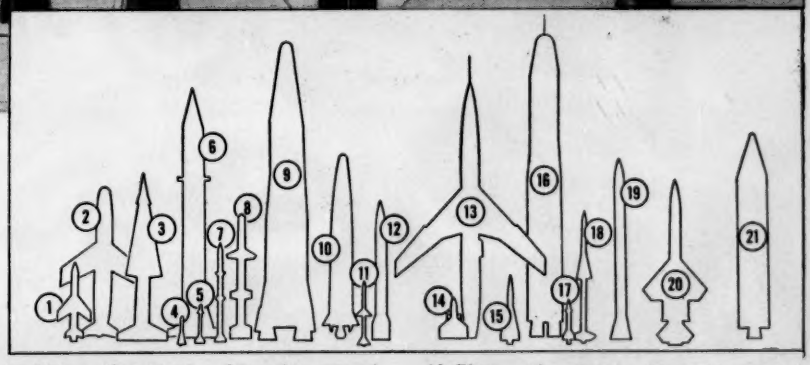
Ed: We're after more current material, less history. But there's always room for a good study that teaches some lessons to use now —especially on the small unit level.



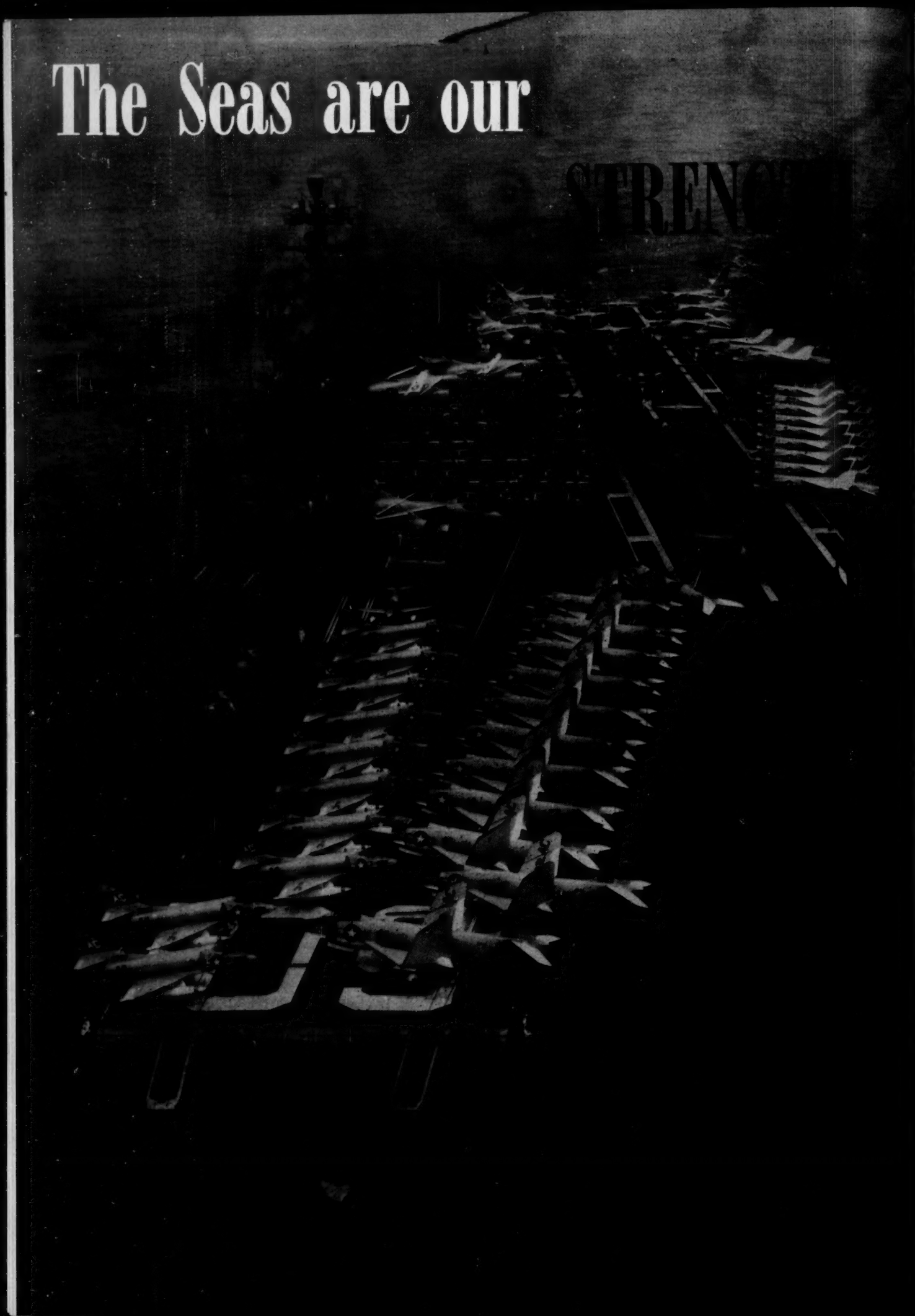
21 U.S. missiles rely on Raytheon electron tubes

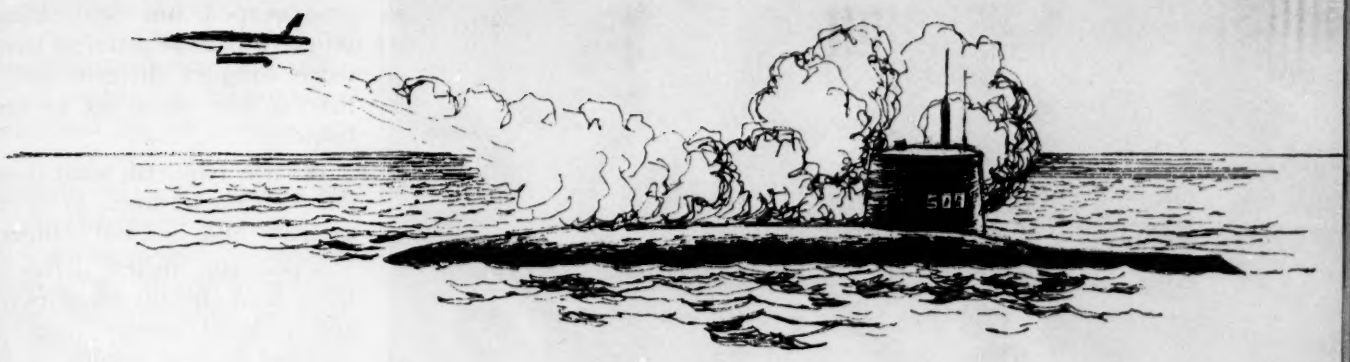
RAYTHEON COMPANY, WALTHAM, MASS. RAYTHEON *EXCELLENCE IN ELECTRONICS*





1. **Lacrosse.** Army. Ground-to-ground. Prime contractor: Martin.
2. **Mace.** Air Force. Ground-to-ground. Prime contractor: Martin.
3. **Nike Hercules.** Army. Ground-to-air. Prime contractor: Western Electric.
4. **Falcon.** Air Force. Air-to-air. Prime contractor: Hughes.
5. **Sidewinder (GAR-8).** Navy/Air Force. Air-to-air. Prime contractors: Philco; General Electric.
6. **Redstone.** Army. Ground-to-ground. Prime contractor: Chrysler Corp.
7. **Terrier.** Navy. Surface-to-air. Prime contractor: Convair.
8. **Talos.** Navy. Surface-to-air. Prime contractor: Bendix Aviation.
9. **Atlas.** Air Force. Ground-to-ground. Prime contractor: Convair.
10. **Thor.** Air Force. Ground-to-ground. Prime contractor: Douglas.
11. **Sparrow III.** Navy. Air-to-air. Prime contractor: Raytheon.
12. **Sergeant.** Army. Ground-to-ground. Prime contractor: Sperry Rand.
13. **Snark.** Air Force. Ground-to-ground. Prime contractor: Northrop.
14. **Quail.** Air Force. Air-to-ground. Prime contractor: McDonnell.
15. **Hawk.** Army. Ground-to-air. Prime contractor: Raytheon.
16. **Titan.** Air Force. Ground-to-ground. Prime contractor: Martin.
17. **Bullpup.** Navy. Air-to-ground. Prime contractor: Martin.
18. **Nike Ajax.** Army. Ground-to-air. Prime contractor: Western Electric.
19. **Corporal.** Army. Ground-to-ground. Prime contractors: Firestone; Gilfillan.
20. **Bomarc.** Air Force. Ground-to-air. Prime contractor: Boeing.
21. **Jupiter.** Army. Ground-to-ground. Prime contractor. Chrysler Corp.


The Seas are our



By Hanson W. Baldwin

BOTH NATIONAL AND INTERNATIONAL events indicate that the United States armed forces are approaching a political, social, organizational and strategic crisis, for which there is no prior precedent. Between now and 1965, the shape of things to come will cast a long shadow across the remainder of the Twentieth Century. The nation may, indeed, take the road that dips down at last into the valley of Armageddon, or it may, conversely, follow the rugged uphill highway which all peoples must tread who deserve the appellation "great."

The signs are unmistakable. Nikita S. Khruschev's controversial visit to the United States; his propaganda call for universal and complete disarmament, his open demonstrations of temper and temperament; the Communist aggressions in Laos, Tibet and along the Indian frontier; the unsettled Berlin crisis, the volatile Middle East, viscous Africa, explosive Latin America, a legion of unsolved political problems across the globe; the industrialization of agrarian nations, the rapidly growing world population, all these and many other factors are building up into a kind of international watershed, with history at the summit.

In the United States inflation marches on; a Presidential election is in the offing; the dollar "squeeze" on the armed services is becoming tighter and tighter; the technological revolution in warfare is gathering momentum, and already, with the ink scarcely dry on the most recent organizational changes in the Pentagon, strong drums are beating for more "unification," for one-service, for a single chief of staff and other nostrums.

What is the threat to our national security and to our combat effectiveness?

It is both external and internal—physical and moral.

Externally the threat is formidable. The avowed enemies of our system of life—despite Mr. Khruschev's sweet aphorisms—include the USSR, the largest land mass in the world, and the Peoples' Republic of China, a nation with the largest population in the world. Powerful industrial and military resources—the latter more well-rounded than our own, and increasing in power at a more rapid rate than our own—back a political and economic ideology determined to overthrow the Western way of life and to convert it to Communism.

Man: An Irrational Animal

The threat is both rational and irrational. A rationally motivated, deliberate and pre-planned attack upon the United States or our Allies, or both, is a military possibility for which we must prepare. But no rational rulers will deliberately initiate such a war as long as they are convinced that regardless of what they do, their nation will receive unacceptable damage in return.

It would be hard to prove, however, that the causes of wars are always—or even usually—rational. Man is often an irrational animal, and the more power he has, the more it may "go to his head." Mr. Khruschev is no exception. He is *not* a Hitlerian paranoiac. He is shrewd and calculating—politically brilliant; so far he has taken no very long chances in foreign policy. But he is ruthless and tough—the product of a hard school of survival, and he is arrogant, aggressive and cocky, with (perhaps his most dangerous defect) an inability to laugh at himself. And he is a dictator and a human being—hence the danger of war by irrational act. Or by incident or accident. . . .

Our national security policies must, as far as possible, guard against such dangers.

But the history of the last fifteen years emphasizes that the greatest danger we face is calculated, planned and protracted conflict – creeping Communism. There have been more than twenty instances since WWII of small or limited wars, coups, rebellions, aggressions — combat in which guns have been the arbiters of history. Some of these arose from purely local causes and involved only indigenous forces—but Communism has a way of exploiting all conflict to its own ends. And in many of these wars, Communism participated, guided, directed or profited; in a few it lost.

Threat From Within

Small aggressions, or the threat of them, limited wars, internal coups, rebellions, exploitation of international, national, local, class and economic differences; political, economic and military infiltration (as in Laos); widespread propaganda, probing for weak spots—this is the nature of the major external threat of our time.

But there is also an internal threat to our national security, which is broader and perhaps more insidious

CVAs* Forrestal *and* Independence *readying for fleet operations

than the subversion of Communism.

The changes in the national attitudes, the weakening of the national character in the past half century and the deliberate and misguided attempts—which have been pronounced since WWII—to force our military services into a conformist social mold present imperative dangers in the future.

The increasing influence of politics in the military services—particularly the pressures exerted upon the Joint Chiefs of Staff to become political defenders of administration policy (as evidenced by the appointments for two year terms)—is one danger signal. More important are many of the concepts, principles and methodology foisted upon the military by civilian life: cost-accounting, career guidance, *egalité,* the organization man, reduction of all to a common denominator, civilianization, organizational centralization—a kind of amoeba-like growth in the numbers of government "servants;" and emphasis upon strategic conformity—in total summing up to a kind of military "togetherness," as sickening and as insidious as the euphoria of Madison Avenue.

Samuel P. Huntington, in his classic "The Soldier and the State" noted that "the military institutions of any society are shaped by two forces: a functional imperative stemming from the threats to the society's security and a social imperative arising from the social forces, ideologies and institutions dominant within the society.

"Military institutions which reflect only social values may be incapable of performing effectively their military function."

The internal danger to US national security is that we have been trying far too much to shape our military institutions in the image of our social mores, our business methods, our advertising culture, and our social "reforms;" far too little to the realities of the battlefield and to the nature of the protracted conflict that lies ahead.

Costly Defense Problem

Our military and organizational policies have been influenced by attractive shibboleths, by catch-phrases, by advertising techniques, by "softness," by the hope of finding an easy single solution, a "cheap" defense, one definitive answer, one all-purpose weapon, one dominating concept to a defense problem that is far more complex, diverse and costly than in any other age in recorded history.

What is required, what should we do, what do we need, to meet these external and internal dangers?

A powerful nuclear delivery capability is an obvious necessity to deter any rational enemy from a preplanned nuclear assault or from a large-scale general conventional attack. To be effective, such a deterrent must be capable of inflicting unacceptable damage upon any enemy regardless of what the enemy does first, and the enemy must have the fore-knowledge that we possess this capability and the will to employ it.

How Much for How Little?

This definition inherently implies a certain degree of invulnerability for our nuclear delivery forces. Enough of them must survive an initial surprise attack to overcome any enemy defenses and to inflict crippling damage upon any enemy state. Invulnerability can be achieved by one or a combination of the following factors: Active defenses; "hardening" (or passive defense) of bases and missile sites; dispersion (safety in numbers), secrecy or hiding of the retaliatory bases, and mobility.

Obviously the weight to be attached to each of these factors must be determined by technological and economic considerations—how much invulnerability do you achieve for the cost?

The answer to this question may differ as the frontiers of science and military technology are pushed back. If, for instance, in some future time, a kind of "death ray" were developed capable of destroying any flying object, the emphasis then placed upon active defense should logically be far greater than the emphasis that should be placed upon it today—when no defense exists against ballistic missiles and when the defense against piloted aircraft is very considerably less than perfect.

Today, and for a long time to come—given the present "state of the art"—the most important invulnerability factors are secrecy and mobility. If the enemy does not know

where your planes or guided missiles are; if he cannot see, or plot the coordinates of their bases, or predict their future position, he cannot hope to knock them out by surprise attack.

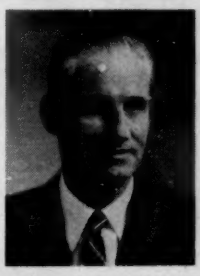
This means that a satisfactory deterrent can be finite. A nation's capability to exist as a nation—its organization, its distribution and communication system, its political controls and its great urbanized and industrialized areas—are finite; they require a specific number of hydrogen weapons to destroy them. If we can be sure of delivering that number of hydrogen weapons, regardless of what the enemy does first, the deterrent exists. But, until the advent of the Navy's Polaris submarine missile sysem, capable of ranging the ocean depths, the prevailing concept in Washington has been that we could not be sure of maintaining such a deterrent in the face of an enemy surprise attack. We must, it was held, attempt to knock out the enemy's missile launchers and airfields in "pre-emptive" attack. That is, we would launch our missiles and planes first; their targets: the enemy's nuclear delivery vehicles—as soon as we had satisfactory evidence that the enemy was planning a surprise attack.

What Is Enough?

Obviously such a "counter-force" deterrent represents not a finite strategy, but an infinite one. What is enough? If the enemy's missiles and planes were our targets, our own missiles and planes would have to be increased in number in almost geometric proportion as the enemy built up his striking strength. Moreover, how could we tell—least of all in the vast spaces behind the Iron Curtain—where all the enemy's missile sites were? Suppose his missiles were emplaced on railroad flat cars? What then? And how does one determine with reasonable certainty that an enemy is about to attack?

The counter-force concept and the pre-emptive strike were defensible—and, under certain conditions, feasible—in the age of the piloted aircraft. But in the age of the missile, particularly the mobile missile, they have lost their military validity. And in the age of inflation and the dwindling dollar such an infinite strategy can only lead to unlimited costs.

Mr. Baldwin's comments in the "New York Times" are read closely by civilians and members of the armed services alike. As Military Editor of the "Times," someone once said of him, "He knows more about what the General Staff is thinking than anyone on the Staff." A graduate of Annapolis, he has been a military writer since 1937. His reporting from the Pacific Theater in 1943 won him the Pulitzer Prize.



What we must have, therefore, in a world of "two scorpions in a bottle" is a deterrent capable of destroying the enemy as a nation, no matter what the enemy does. This means, above all, an invulnerable deterrent —mobile, hidden, dispersed.

But this is not enough. It answers one important part of the external threat—the threat of nuclear assault. But it does not answer the far more likely tactic of creeping aggression.

It has been claimed, that "massive retaliation" at a "time and place of our own choosing" was a sufficient answer to limited aggression. There are enthusiasts who even believe that the Strategic Air Command has a capability for meeting any kind of aggression anywhere.

But the lessons of history refute such generalizations. How would SAC have answered the Lebanon

crisis? Or Quemoy? Do you use a sixteen-inch gun to kill a fly—a hydrogen bomb against gun-running and small-scale guerrilla warfare?

Military force, to be effective, must be applicable to the specific situation it is intended to meet; it must be discriminatory. A deterrent, to be credible to the mind of any enemy, must be either visible or obvious, and the enemy must believe that it will be invoked. The bounds of credibility are strained when we invoke the hydrogen weapon to defend the status quo in Berlin; even more important, shuddering fear surges through the foreign ministries of our allies when one whispers that Berlin can be defended only by a nuclear holocaust. And in Laos, where the green hell of the jungle is the battlefield, and the rifle and the bullet the weapon, how can a hydrogen bomb, about which few of the illiterate combatants have ever heard, decide the issue? Or for that matter, how can a bomb or a bullet kill an idea?

Our principal enemies – Soviet Russia and Communist China—have adjusted their military forces to the nuclear age, but their organization, strategic concepts, weapons and tactics make it imperatively clear that neither Moscow nor Peiping believes there is a single simple strategic answer to the complex military problem of today. Both nations still maintain large armies—the world's largest—armed with conventional weapons; both are trained in guerrilla tactics, airborne tactics, amphibious operations and in non-nuclear, as well as nuclear war.

The Right Punishment

It is clear that a modern military force must be a multi-weapon, multi-purpose force, capable of meeting any form of aggression anywhere, with weapons, forces and tactics that are both discriminatory and selective. Any deterrent to be effective must be graduated; the punishment must fit the crime.

All this means that the answer to creeping aggression must include political, economic and psychological measures, and that the military part of it must emphasize non-nuclear forces. Like our nuclear deterrent, these limited war forces must be mobile—strategically and tactically. The periphery of Eurasia, where the battle for the world will be decided, is an immense strategic canvas; unless we can transport our deterrent rapidly to any threatened point we are undone. Sea power and air power must provide this strategic transportation and the supporting fire power for the area of crisis; but land power in various forms and trained for various tactics is—and must be—the point of the spear.

F8Us on flight deck of USS Forrestal—*September 1959*

When one examines US strategic concepts and existing US military strength and capabilities against this background of our needs, the imbalance and weaknesses stand out.

We have over-compensated and over-spent for the least likely war; we have under-spent for the kind of war that is most likely to occur. We have put the accent in the wrong place in our preparation for both nuclear and non-nuclear war; too much on non-mobile, static defenses, too little on mobile, flexible deterrence. And we have allowed our social values to mold our military institutions at the expense of combat effectiveness.

Let's take a look at our military forces today.

First, the strategic concept which dominates force levels, composition, weapons and development is still "massive retaliation." True, the National Security Council has "walked back" to a degree on the original concept and has paid at least lip service to the necessity of preparing for limited wars. But budget breakdowns between the armed services and within them have reflected this slight change in emphasis very little, if at all. The Air Force budget represented 46.3 per cent of the defense budget in 1959; during the current fiscal year, the Air Force still receives almost the same percentage. The Navy Department (including the Marine Corps) received 28.8 per cent in 1959; it will get 27.5 per cent during the 1960 fiscal year. The Army got 22.6 per cent in 1959; it will get 24 per cent this year.

Missiles in the Mill

The Air Force now has about 600 heavy bombers, 1,200 to 1,500 medium bombers. The USSR has at most 150 heavies, perhaps 1,000 mediums.

The US has bases around the periphery of Eurasia; Russia has none in this hemisphere. The US has an air refueling capability far superior to that of Soviet Russia.

Authorization and partial funds have been provided in Washington for the construction of more than 200 liquid-fueled ICBM missiles—all of them to be launched from fixed base installations, some of them "hardened." A future program for the construction of solid-propellant Minuteman ICBM's is scheduled, all to be based on the US Continent. In addition four squadrons (sixty missiles) of intermediate range ballistic missiles are programmed for Britain, two (thirty missiles) for Italy—some for Turkey. A squadron of Snark 5,000-mile-range missiles and several hundred Matador 500-mile-range missiles are operational.

The USSR undoubtedly has short-range missiles—(up to 1,200 miles) numbered in three or four figures. Her operational ICBM's—like our own—are probably numbered at this writing (October, 1959) in one or two figures, but she may well be building now more than we are.

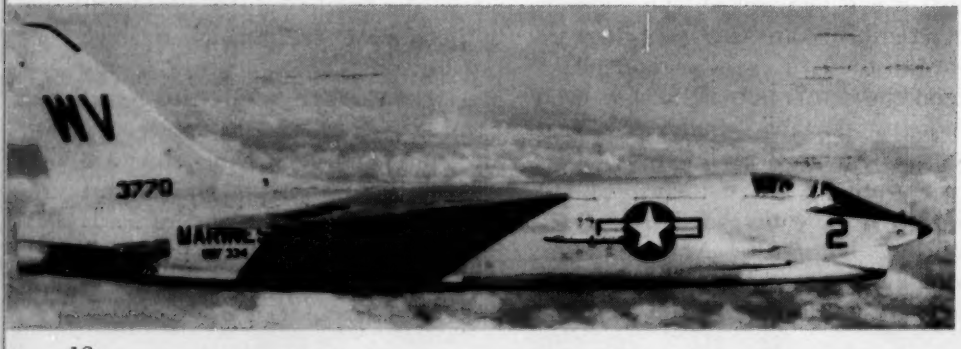
Excessive 'Overkill' Capacity

In addition to the tremendous Air Force capability for nuclear retaliation, the Navy has—and plans—a formidable punch. Fourteen fleet aircraft carriers are in commission, each capable of launching at least twenty nuclear-carrying attack bombers. Cruisers, submarines and carriers also are able to launch the winged missile—Regulus I. Nine fleet ballistic missile submarines, each capable of firing sixteen Polaris (1,000 to 1,500 miles) solid-propellant missiles are under construction; more are planned.

The Army has a tactical (short-range) nuclear missile capability with the Corporal, Redstone and the Pershing (under development) at ranges from 15,000 yards to 500 miles.

There are in Russia some 200 cities with populations of more than 50,000; today, the United States has at least 4,000 to 6,000 planes and missiles capable of delivering nuclear weapons. A safety factor—i.e. more than is necessary—is obviously necessary, but an "overkill" capability of twenty or thirty to one seems excessive.

But this constitutes only part of our nuclear deterrent. The North American Air Defense Command and other agencies have spent approximately $30 billion since 1949 in building radar lines, interceptors, missiles, etc.—the most elaborate air defense system in the world against the threat of enemy piloted bombers. There are only about 150 Soviet long-range bombers; the cost of active defense per bomber has been about $200 million. But this system is already obsolescent since it provides no security against ballistic



missiles. We are now hastily constructing the largest radar installations in the world—the BMEWS stations (Ballistic Missile Early Warning System) in Alaska and Greenland, and the Army's Nike-Zeus antiballistic missile program is price tagged at between $9,200,000,000 and $14,600,000,000 through the fiscal year 1967.

As if all this were not enough, there are loud voices in the land demanding the construction of radiation and blast shelters throughout the country at a total cost estimated between $18 and $35 billions.

Thus billions have been, and are being spent, on preparations for an all-out nuclear interchange and on attempts to transform the North American continent into a gigantic offensive and defensive base—a kind of Fortress America.

Loss of Air Support

Meanwhile the battle for the world is being won or lost far beyond our geographical boundaries. Our limited war capabilities have been steadily reduced despite the painful lessons of Korea, a war limited in both political objectives and military force and hence a prototype of the kind of war we may face in the future. Planes are flying farther and faster into the "wild blue yonder"; we are plumbing the mysteries of space, but the Navy still has no substitute in battlefield support for the old prop-driven workhorse of Korea—the Douglas AD Skyraider. The Air Force Tactical Air Command has immensely increased its nuclear delivery capability, but has immensely reduced its close-support non-nuclear capability. The Navy's attack carriers have been reduced in numbers from fifteen in 1956 to fourteen today; the numbers of piloted aircraft are steadily falling, despite the fact that no missile in being or under development has the flexibility, versatility and discrimination in close support or interdiction work that a piloted aircraft possesses. The nation's amphibious lift capacity has also been weakened; amphibious ships in commission can now lift less than half a division in each ocean. Marine Corps strength today is 175,000 as compared to 200,000 in 1956. Army divisions number fourteen now; eighteen then.

The US fleet is aging steadily; only 170 out of 864 ships in active commission (in early 1959) have been built since WWII.

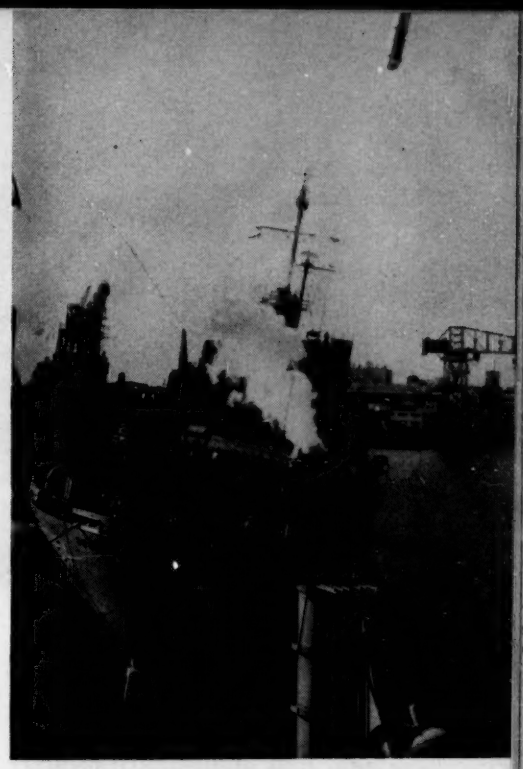
The nation's air lift capability—despite the jet engine age—has by no means compensated for our decreased strength in seaborne lift. The over-emphasis that has been placed on the plane as a nuclear-delivery vehicle has undoubtedly retarded development of the plane's most useful function—its military logistic function.

Thus, both in mass or power and in mobility and flexibility, US limited war capabilities have been reduced as our all-out nuclear delivery capabilities have increased. More and more we are becoming committed to the war that nobody wants, the war that nobody can win, the war that has no logical political objective—the all-out nuclear interchange, the Armageddon of senseless slaughter and mutual suicide. And we are patterning our fighting men to this technological robot; the technician has been exalted at the expense of the combat leader.

Defense: At a Crossroads

When one examines these trends from long-term perspective, it is obvious that the nation faces a crossroads in defense. Given the present "level-budget concept" of the administration—a plateau of about $40 billions annually—and the "flight" of gold abroad it is manifestly impossible, with present concepts, to make the technological transition to the missile and nuclear-powered age, and at the same time to maintain present force levels and compositions. Something has to give and what has been giving is numbers and capability for limited war.

It is, of course, true that new weapons or weapons systems with improved combat capabilities can substitute to some extent for numbers; replacements do not have to be —indeed, cannot be—on the basis of one for one. But numbers do count,



Launching dummy Polaris missile

particularly in limited war, and the nation is reaching a point of no return. The Lebanon-Quemoy crisis strained our limited war capability —particularly in the fleet—almost to the maximum; there was some doubt that one of our aged carriers would be able to stagger home before she broke down. More recently a squadron of destroyers on duty with the Seventh Fleet, due for relief, had to be retained beyond the normal tour of duty because the destroyers scheduled to relieve them were in such a bad stage of readiness they had to be overhauled.

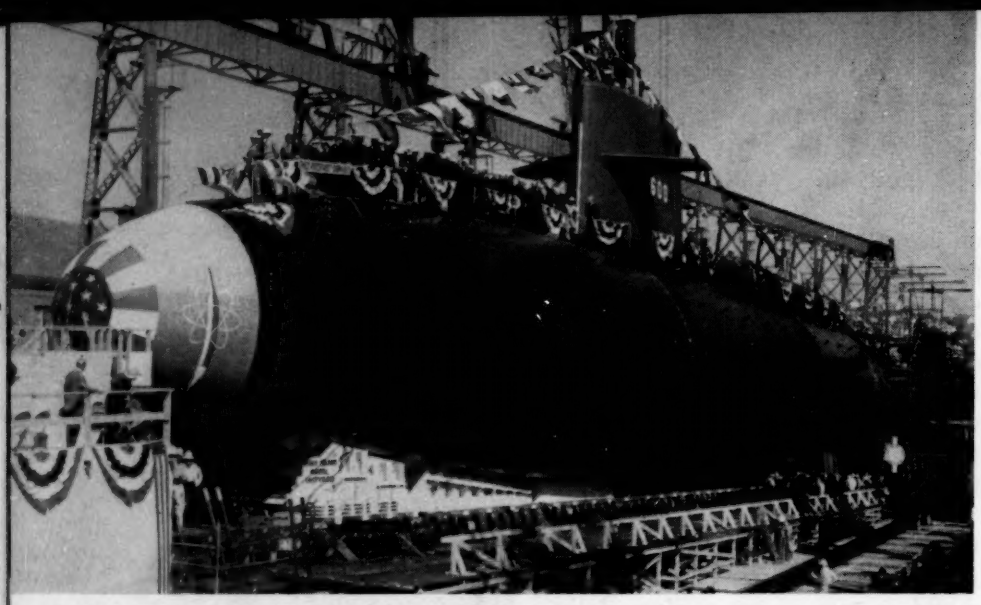
Recently, one of the nation's most far-thinking officers, trying to pierce the heavy shadows of tomorrow, predicted that unless present trends are altered, the nation's armed forces would be so reduced in numbers by 1965 that "we will be out of Europe, Korea and Japan."

* * * *

This somewhat lugubrious estimate of our military capabilities and of present policy trends prompts the question—what can we do about it?

Six basic principles should dominate our strategic concepts in the years ahead.

1) Any valid military policy must support a finite and attainable political goal. The aim of any rational conflict is not—and never can be—unconditional surrender or total destruction.



Ballistic missile submarine* USS Theodore Roosevelt *at launching.

Unlimited political goals, such as the destruction of an ideology, lead to unlimited military aims, to infinite expenditures and to disaster. The operational words of any military policy must be *"finite"* and *"attainable."*

2) The pace of the technological revolution demands top priority and generous funds for research and development in all weapon fields. A "breakthrough" could conceivably alter the entire structure of defense.

3) Next is a negativism. A Fortress America strategic concept cannot possibly support the nation's political and economic policies in the years ahead. There was a time when isolationism as a political and military policy was completely viable. When the nation was keyed chiefly to an agrarian, rather than an industrial, economy; when we produced more strategic materials than we imported, when no vital assault upon our shores was possible, when we did not need the trade of the world, isolationism was defensible. But it is not a viable policy today and cannot be tomorrow. Missiles and jet planes have altered the time-space factor, and foreshortened the map of the world, and nuclear weapons have postulated a threat to our existence as a nation. A defense based upon our own shores is impossible; it sacrifices the advantages of bases overseas, outpost and warning lines. Moreover withdrawal into our frontiers would imply political, psychological and economic defeat; our allies would slough away. Nothing could be so well calculated to insure the domination of the world by Communism.

4) A corollary to this proposition is self-evident. Any military policy we adopt should have as one of its primary purposes the security of the home base; in other words, we must attempt in the future, as we have done in the past, to keep war away from our own shores, to fight it on the broad seas, in space or in the air, or on other continents.

5) Invulnerability to surprise attack is a key requirement to the successful nuclear deterrent of the future.

6) Flexibility and rapid reaction to an entire spectrum of challenges is essential if we are to be able to make the punishment fit the crime, if we are to be able to meet a limited enemy aggression with limited means.

USS Seawolf

These six principles, these policy guidelines, very clearly indicate the kind of military force the nation requires.

A finite and invulnerable deterrent force is one which will fulfill the following requirements:

Target system—The capability of the enemy nation to exist as a nation; i.e.—its political and communications complex; its cities and industries.

Size—Large enough, with a safety factor of two or three, to destroy the selected target system.

Defense—Continuous mobility—at sea or in the ocean of air and space, and on land.

The Polaris missile launching submarine, a weapon system within the present "state of the art," fulfills all these requirements. To a lesser extent, surface ships armed with missiles, and chemical powered bombers on air alert meet the needs, as do railway or truck-mounted shore based missiles.

Time for Riposte

The submerged submarine has one problem not shared by planes or surface ships. Reception of low frequency radio communications is possible, even when submerged to certain depths, but it is less reliable than surface communications, and impossible at deep submergence. And radio transmission from submarines to shore can be achieved only by extending an aerial above the surface. This slight disadvantage is not, however, either crippling or permanent. Various means of improving communications between shore and submerged submarines are now under development. And, in any case, there is no such premium upon speed of reaction in the case of the Polaris submarine as there is with fixed missile bases ashore. Unless the shore-based missiles are launched within fifteen to twenty minutes of receipt of warning, that incoming blip on the radar screen—still, perhaps, not clearly identified—may destroy you. In the depths of the sea one still enjoys the luxury of time—time for evaluation, time for riposte. The submarine or ship has another great advantage; it does not

draw the lightning of enemy attack upon the home base, upon continental America; its base is the trackless sea.

The Polaris submarine, therefore, most clearly fulfills today the need for an invulnerable deterrent. Tomorrow, when the state of the art permits, nuclear powered aircraft with air-launched ballistic missiles constantly on patrol in the skies around the globe, may well supplement the submarine. And still later on the technological calendar may come a variable-orbit, missile-launching satellite continually circling the world.

Billions for Offense

Clearly, our finite deterrent today and in the 1960-1970 period should be increasingly keyed to the submarine as the primary force, with bombers and air-breathing missiles, surface ships and truck and railway-launched mobile missiles as secondary and supplementing elements.

The defensive part of our deterrent—like the "overkill" capability, which has been keyed to an infinite goal—has expanded beyond all reason. The Nike-Zeus, and the SAGE system are part of a "Fortress America" concept, but their contribution to the invulnerability of our nuclear delivery forces—which is the real deterrent—does not appear to be worth their cost. Today—and until 1970, at least—the missile offense has a clear-cut advantage over the defense; we would do well to spend millions for research and development of defensive weapons but not billions for the production of marginal or inadequate systems.

The requirement for collective security and the need for a flexible defense, capable of meeting any type of challenge anywhere also dictate the need for conventional forces, capable of fighting non-nuclear battles.

With the oceanic rimlands of the Eurasian continent threatened by the heartland enemy, and with the surrounding seas and skies as the only avenue of attack and line of communications to other continents, it is clear that mobile sea power must play a major role as a deterrent to limited, as well as to unlimited attack. Only by sea can collective security be preserved; without sea power, Korea could be overrun by limited assault, Western Europe absorbed little by little, southeast Asia attacked. Sea power—which today means air power above the seas as well as ships upon and beneath the surface—must control the lines of supply to our allies, must be capable of transporting land power to nearly any point around the periphery of Eurasia, and must be able to support land power within range of sea power's weapons.

There is need for three types of land power in the threatened rimlands, with the necessary air support to make it effective.

First is the need for indigenous forces in the rimland nations, to maintain internal security and prevent a Communist coup, and to pull the trigger—to start the fighting—in case of external invasion. In the larger nations, such as France and England, such forces are assured; our difficulties with foreign military aid have occurred chiefly in the smaller, more backward nations. Here, we have made two mistakes. We have attempted, in countries like Iraq, or Iran, to create armies too much after our own image, and we have allowed political and psychological considerations to be overemphasized at the expense of military effectiveness. Some of the smaller armies have become much too

"big," have been over-organized and over-equipped with no clear purpose —save national prestige— in view. A country like Iran—standing alone—could not possibly hope to halt Soviet aggression; her defense is clearly dependent upon collective security. What Iran needs then, is not a large army—but one that can and will resist if invasion occurs—a "trigger" force that will fire the shot heard round the world and that will therefore, automatically invoke and bring to bear the forces of collective security. Such a force should also be capable of delay, of harassment, of intelligence collection. Indigenous forces should be carefully organized and trained for demolitions, for guerrilla warfare and for stay-

behind activities. Yet our training emphasis in many of our MAAG's has been upon formal warfare, rather than upon the only kind of war small nations can fight today against major aggressors – unconventional war, war of harassment and delay, guerrilla war.

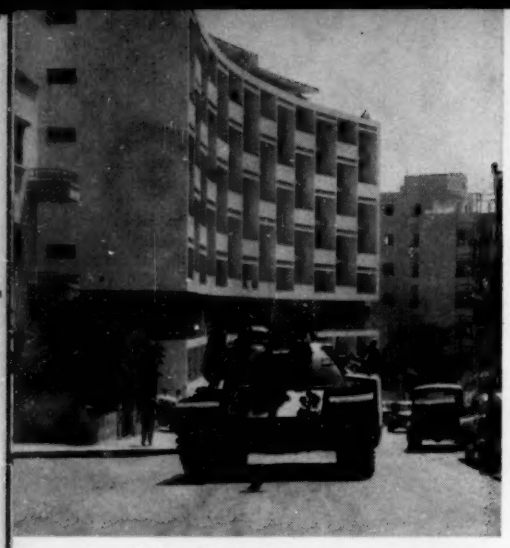
A second type of land power essential to certain portions of the Eurasian rimland is the formally organized and equipped and fairly sizeable forces such as those found in Western Germany. Vital areas like Germany—gateway to all of Western Europe—need protection, not only by the nuclear threat, but by the presence of troops equipped to make the punishment fit the crime, ready to fight with or without nuclear weapons.

Atomic Ruin

There is no doubt that Europe should furnish the bulk of her own defense—indeed, this may come to pass as Western Germany rearms. Even so, American land power will be required, if only in a static sentinel role, for some time to come, not only to bolster the still weak armies of the West, but as a pragmatic, on-the-scene pledge of collective security. If all our forces are withdrawn from foreign commitments and the United States pins its deterrent entirely upon atomic retaliation, we can scarcely expect our allies to remain steadfast. For, if some minor aggression occurs and we have no answer to it except atomic ruin for ourselves as well as the enemy, the deterrent is not credible either to our allies or the enemy. Soldiers on the scene are the best evidence of American determination to fight for freedom.

This sentinel role—relatively large land forces deployed to defend specific fixed areas—is the Army's role, and one which it has met well in Korea and in Germany and Italy.

But the Army is handicapped to-



Marine tank in Beirut

day, partly because it is low man on the budget totem pole, partly because it has devoted so large a proportion of its funds to space, missiles, Nike-Zeus and general-war weapons systems. It should be a cause of shame to all Americans that the US Army—which ended WWII by far the most plentifully and best-equipped Army in the world—has now been surpassed by the Soviet Army, not only in quantity, but in quality, of conventional arms.

A third kind of land power needed is a mobile force, ready for action around the rimland of Eurasia, or elsewhere in the world. Such a force need not be large; its cost would be prohibitive, its rapid transportation impossible if it were numbered in hundreds of thousands. But it should be very highly trained for all kinds of limited conflict; it should be better equipped than any enemy it may face; it must be heavily supported by sea-air power, and above all, it must have a rapid reaction time. Such a fire-brigade, instantly in action against a small brush-fire, might well extinguish the blaze before it became a conflagration.

The Marine Corps and the Army must provide these forces. Fleet Marine Force units—some of them deployed at advanced bases in the Pacific, or embarked aboard amphibious vessels with the Sixth Fleet—are limited in their reaction time to the speed of the ships upon which they are embarked. Helicopter landing techniques provide tactical flexibility and speed, but do not contribute to rapid strategic reaction and must be followed up by heavy sea lift. If amphibious ships, with Marines embarked, happen to be near a scene of crisis, the reaction time—as in Lebanon—is fast. Usually a crisis advertises itself before the event, so that there will normally be time to place ships, with mobile land power aboard, close to the scene, but if the unexpected happens—and it often does in history—the reaction time of mobile land power based upon ship transportation may be slow. There are moreover, land-locked countries —such as Laos (now threatened by Communism) which have no seaports and which are beyond the range of ship-based helicopters.

These advantages, however, are offset by the mass capability of seaborne transportation. Ships can lift heavy equipment—tanks and large guns, and the vast quantities of ammunition, oil and supplies—which are beyond the capability of air power (except in relatively small quantities at prohibitive costs). Seaborne transportation enables a massing of power for conventional war which is not achievable in any other way. And, as long as the objective can be reached by sea, the sea can also provide support—in the form of ship gunfire, ship-launched missiles and planes and a secure line of communications. Lebanon and Quemoy, Korea and all the modern wars of history have demonstrated that the

sea as a medium of military transportation is still overwhelmingly important; for bulk cargo, for heavy equipment, for large numbers of men—ships and only ships provide the necessary overseas transport.

The Fleet Marine Force—geared fundamentally to sea transportation —is therefore, an indispensable part of the nation's limited war team—the spearhead of amphibious warfare. The team has weaknesses. The Navy's amphibious fleet is aging and inadequate; new, faster and better designed ships are needed. The new Marine divisions, flexible and mobile in air-amphibious assault and far better organized for conventional war than the Army's "Pentomic" divisions, nevertheless seem overburdened and too "heavy" for some of the rapid-moving, lightly-armed land battles they might have to fight. There has been too little emphasis on guerrilla and anti-guerrilla tactics, not enough stress on street fighting and the suppression of terrorism. And, the strength of the actual ship-embarked, water-borne elements of the Fleet Marine Force should be increased.

The Army's airborne ready units have a definite role in the provision of a mobile force for limited war. There is some duplication and overlapping between Army and Marines; nevertheless, airborne ready forces are needed, and should be regarded as complementary, rather than competitive. In one respect they clearly fill a need which cannot be met by seaborne transportation. Air transportation has two great advantages —or more properly, it should have those advantages. Planes can leap the ocean, move from one point to another on the globe's surface far faster than ships. And they can reach inland countries, beyond the reach of the long arm of sea power.

Unfortunately the airborne concept has never fully utilized these advantages; in fact, the present organization indicates that speed of reaction—which should be the primary objective—leaves much to be desired. This is not entirely the Army's fault; the Army does not control its own air transportation. It has been—and is—handicapped by inability to count with assurance upon either specific numbers or specific types of planes. Some of the Army weapons—particularly heavy supporting weapons—can be air transported, if at all, only with difficulty; tanks for instance must go by sea. Airfields also sharply limit the efficacy of air transportation; at the scene of action, they may be nonexistent, in enemy hands, or inadequate for large-scale use. There are other major problems; for instance, aviation fuel; and staging bases (which might not be politically available in time of crisis).

Nevertheless, the speed of the plane and its capability of over-flying any spot on earth, are so important to the need for quick reaction that airborne transportation must be developed to the fullest. This does not mean mass transportation or a complete system of air logistics. For

this can be achieved only at great cost and at the expense of speed, if at all, and quick reaction is the *sine qua non* of airborne operations.

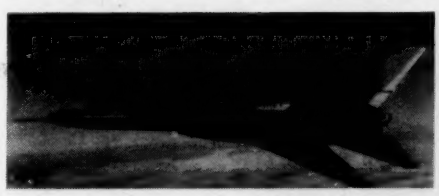
This suggests the fundamental Army objective here should be the development of small but instantly-ready airborne forces for service anywhere in the world. These forces need not be large; one division instantly ready and completely air transportable is far better than three or four with slow reaction time. This suggests, too, that the Army should have greater control over its air transport fleet and that the arms and equipment of the airborne units should be tailored to the planes that carry them and vice-versa. It also suggests that the airborne units should fly lightly-equipped, stripped-down, ready to jump into action; they should—and must (as Lebanon showed)—sacrifice staying power for speed. Unless this concept of the airborne mission is pushed, the same abortive compromises of the past war will bar the development of the full capability of the airborne troops. If, as in Lebanon, a single airborne battle group requires a sea support "tail" of twenty ships, the primary concept – speed – has been compromised. On the other hand even if maximum speed is achieved it is clear that airborne forces must quickly be supported by seaborne reinforcements, supplies and heavy equipment.

The role of air power in limited war must be primarily an air support role for ground forces; secondarily, an air transport role. There is need, of course, for continued development of the Tactical Air Command's global task force. This task force, in both the Lebanon and Quemoy crisis, demonstrated a quick reaction time. It packs a powerful (though supposedly "tactical") nuclear support of surface forces; neither its planes nor its training fit it for the type of flexible, effective, and mobile air support with conventional weapons that was provided, for instance, by the British Fleet Air Arm at Port Said. Carrier-based naval aircraft and Marine planes should emphasize close support—as the Marines practiced it in Korea—as their fundamental mission, instead of trying to compete with the "wild blue yonder" boys.

First wave hits Lebanon's beach outside Beirut—July 1958

Behind these regular armed forces there must exist reserve cadres trained primarily to fight limited war. Like the regulars, their reaction time, their mobilization time, must be reduced to the minimum. Hence their training and their equipment are considerably more important than their numbers. If reserves are needed in limited wars, it will be far more important to have available three good divisions in the first thirty days than thirty half-trained divisions in ten months. Mobilization potential in the atomic age is still a factor to be calculated in the equation of total military strength, but readiness rather than mass must now have priority.

Such armed services as those just described must be highly trained, tactically imaginative, instantly ready. The tremendous personnel turnover of the services today, the poor motivation of many "time-serving" officers and men, and the over-emphasis



of the technician at the expense of the combat leader have reduced overall combat effectiveness – sometimes to the danger point. Even more important is the frustration felt by many military men and civilians at a role which casts them as more or less passive spectators at their own annihilation. For over-emphasis upon the massive retaliation doctrine, upon all-out nuclear war, can leave the nation's limited war forces only a supernumerary role. . . .

The mere statement of these requirements emphasize the changes the nation must make in its military security policies if we are to survive the crises that lie ahead.

Summary

First, strategy, like diplomacy, is the art of the possible; it must be flexible. The drift toward frozen concepts, inflexible centralized control, one immutable answer to a whole spectrum of challenges must be halted.

Second, a flexible strategy must be the product of many minds—not one. A single service, a single chief of staff would inevitably tend towards a single military "party line."

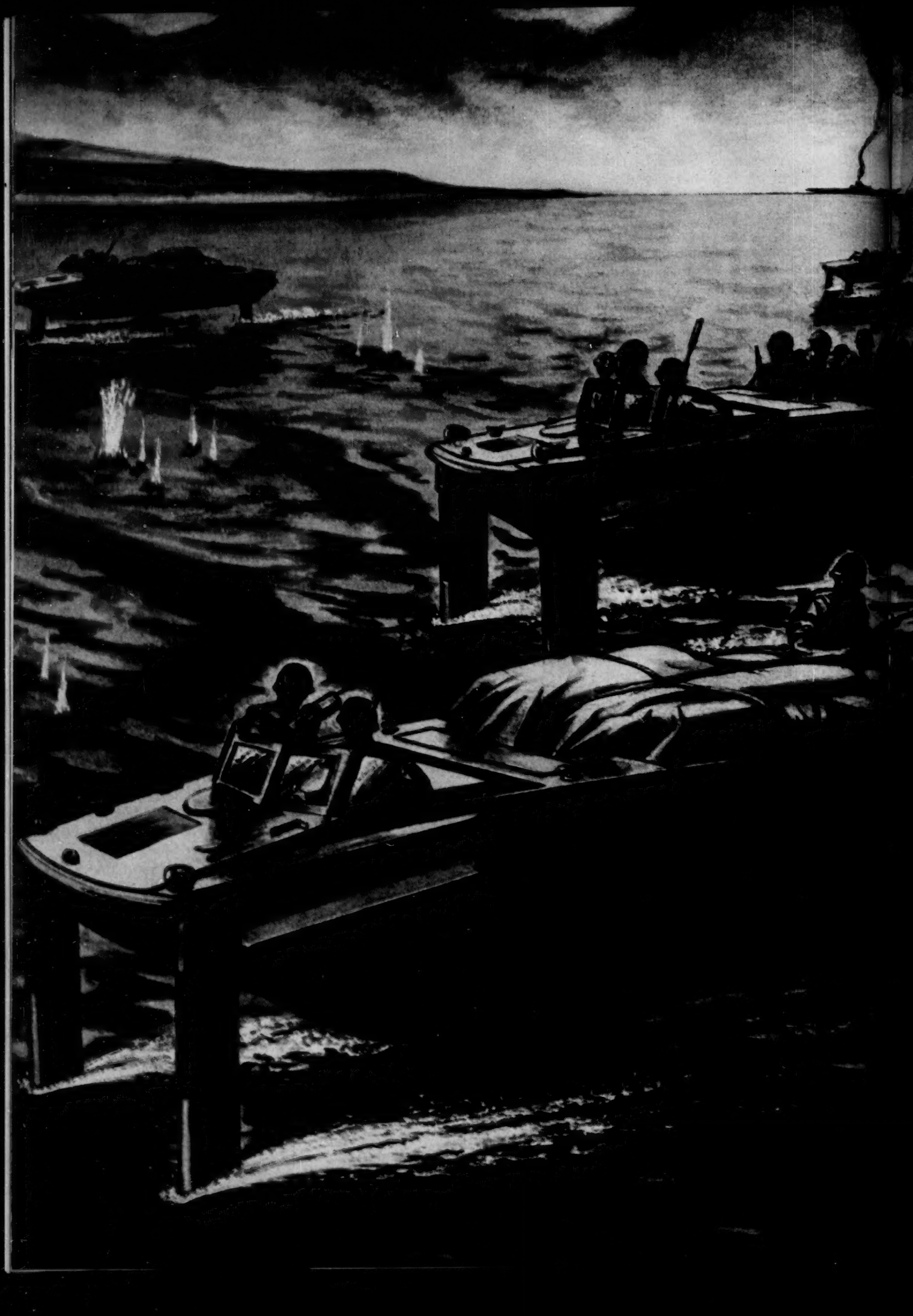
Third, a finite nuclear deterrent must support a finite political goal.

Fourth, our limited war capability must be strengthened.

Fifth, the rigid adherence to a "level" defense budget, and the present distribution of the budget among the armed services, must both be abandoned if the foregoing requirements are to be met.

Sixth, Man—as a leader, as a fighter—not merely as a pusher of buttons; man with a rifle in his hand and the will to win in his heart—is still the primary determinant of battle. Defense must be readjusted to people—not merely to SAC bases. The sooner the nation can maintain entirely volunteer forces without the pressure of the draft, and the more we can utilize militarily the infinite variety of man rather than emphasizing his sameness, the better fighting forces we shall have.

And finally, only in the widest of horizons can we find even a relative security tomorrow. Fortress America is forever gone—one with Nineveh and Tyre, as obsolete as the Maginot Line. We must look unto the seas for our strength—the wind-swept surfaces, the uncharted depths, the skies above. Unless we use the wide waters as base for deterrent, highway for commerce, medium for assault, bastion for defense, and supply line to victory, the years to come will witness the slow end of the American dream. USMC



New—Lycoming HYDROPHIBIAN "flies" troops or cargo ashore six times faster

PURPOSE: With these new Hydrophibians, the Marine Corps will have an amphibious assault vehicle that carries twice the payload at six times the speed of the World War II DUKW.

CAPABILITIES: The Lycoming Hydrophibian is designed to operate at high speeds in rough water. It carries 10,000 pounds of cargo or troops at a top water speed of 45 mph. On land it travels up to 55 mph, and climbs grades as steep as 60 degrees.

OPERATION: In water Hydrophibians begin operation much like a conventional boat. Then as they pick up speed, water flowing around the hydrofoil wings (which are extended below the surface fore and aft) generates sufficient lift to raise the hull about two-and-a-half feet out of the water. On nearing shore, the hydrofoils are retracted and power is transferred to the wheels for land operation. On land the four-wheel drive provides for operation in sand, mud or over highways.

DESIGN: The vehicle is designed by Lycoming. Power is supplied by an 860-shp Lycoming T53 gas turbine engine which can operate on a variety of fuels including diesel, kerosene, JP-4 and gasoline. The boating propeller swivels a full 360 degrees for surf maneuvering and reversing. Wheels, boating propeller, and hydrofoils are fully retractable.

TACTICAL ADVANTAGES: Lycoming Hydrophibians allow far greater dispersion of forces, provide twice the cargo capacity and vastly increased speed for landings. Advantages like this can give new strength and flexibility to Marine Corps amphibious operations.

Lycoming

Division—*Avco* Corporation
Stratford, Conn., Williamsport, Pa.

SOVIET AMPHIBIOUS TEACHING

A translation of an extract from the chapter "Fundamentals of Naval Science" in the book *The Navy*, written by Capt N. A. Nevski, Soviet Navy, published by USSR Ministry of Defense, 1959.

Soviet amphibious recon vehicles on left, November 1959

Landing operations are, as a rule, joint naval operations.[1] They are characterized by the closest cooperation of the navy with other types of armed forces. Based on the missions assigned and the forces designated, such operations can be conducted at the tactical, operational, or strategic levels.[2] Regardless of the level, they have certain characteristics which distinguish them from other operations conducted by the navy and other armed forces.

Foreign specialists divide landing operations into three types: operations to seize large areas of the enemy coastline; operations to seize islands or areas which are necessary as bases for future operations; raids to destroy important enemy objectives with the subsequent withdrawal of the landing force after the accomplishment of the mission.

The composition of the forces for the operation, as well as the composition of the landing force itself, depends upon the mission assigned and the capability of the enemy for counter-action.

The landing force consists of those troops designated for landing on enemy occupied territory. Landings can be naval, air or combined naval and air.

An air landing can be parachute or air-landed or a combination of the two. Most frequently, in modern warfare, combined parachute and air-landed forces are employed.

Naval forces in a landing operation are assigned dependent upon the situation in the naval theatre and the purpose of the operation. As a rule, they must include screening forces, forces for close-in protection and landing ship units.

A landing operation consists of the following phases: training, embarkation, movement by sea, assault, landing, and exploitation.

The commander of the over-all operation generally is the commander of one of the types of forces participating in the operation and having the most important mission in the operation; designated as deputy commanders (commanders of the remaining types of forces participating), are the commander of the landing (as a rule, the landing ship unit commander) and the commander of the landing force.

During the embarkation, movement by sea, assault and landing phases, the commander of the landing force is subordinated to the naval commander. From the moment that the assault is completed, the commander of the landing force, for ground operations, is subordinated to the commander of the over-all operation; for the control of landing units still embarked aboard ship, he continues to be subordinated to the naval commander.

The landing ship unit includes landing ships, rocket-artillery support ships and ships for the defense of the sea area at the landing.

The landing force can approach the landing area by echelons. The first echelon consists of assault troops which are the best trained landing troops.

The ability of battalion, company and platoon sized units, as well as small separated groups of troops, to operate independently, has a tremendous significance in landing operations. For that reason, well trained troops with commanders who display initiative and decisiveness must be designated for landing operations. Weapons and equipment for a unit must be transported on the same ship as the troops of that unit.

USMC

SOVFOTO

Soviet Marines in practice landing, 1953

[1]Author's note: Small scale landing operations can be conducted independently by the navy, without the assignment of ground forces, in which case naval infantry and coast artillery troops are employed.

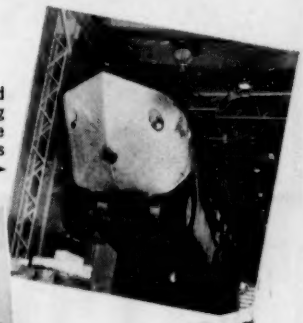
[2]Translator's note: Soviet military doctrine divides the military art into three component levels: strategy, the operating art, and tactics. The term "operating art" is described by the Soviets as the "organization and conduct of military operations" and occupies a middle position between strategy and tactics.

THE *Lark* OF THE LARC

The first prototype of the new 5 ton lighter, designed and built by the Ingersoll Kalamazoo Division of Borg-Warner Corporation, had a busy year successfully completing its extensive test program on schedule.

← Early in 1959. The welded all aluminum hull is shown in Ingersoll's plant ready for installation of machinery.

June 1959. The completed lighter is hoisted by its lifting eyes and set down on the ramp to roll out under its own power. →

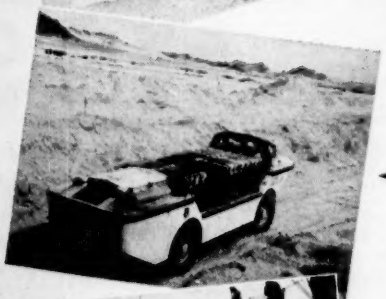


← The LARC 5-1X is loaded for tests at the Ingersoll Proving Ground. Lift trucks are used to simulate service conditions.

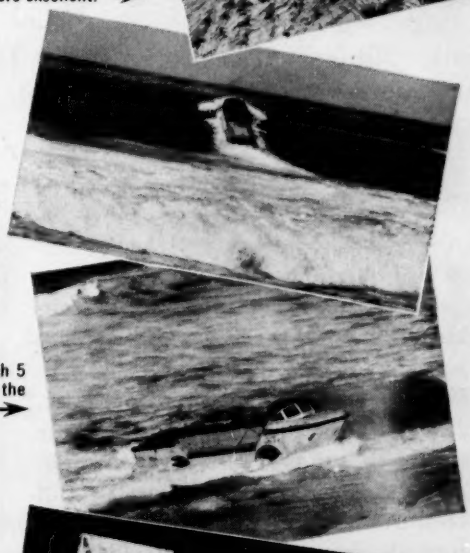
Rolling over the rugged terrain of the Ingersoll land course. Note propellor and guard visible below the vehicle. →

← Water trials with full 5 ton cargo are run in the lake at the Ingersoll Proving Ground.

Soft sand and sand dunes are sought out at the Warren Dunes State Park on Lake Michigan to test tractability of the large low pressure tires. Results were excellent. →



The LARC 5-1X hauled its load over rugged desert terrain at Yuma, Arizona and 29 Palms, California. (Several times it took an accompanying 1/4 ton 4 x 4 in tow when the latter ← stuck in the sand).



Then came the big test in the Pacific Ocean at Monterey, California. Breakers up to 17 feet high failed to stop the rugged lighter. →

← Loading offshore at shipside to check out the lighter in the mission for which it was primarily designed.

Landing on the beach with 5 tons of cargo to complete the mission. →

← Entering the LST under her own power. Propellor and 4 wheels drive simultaneously as the loaded lighter climbs the ramp.

Inside LST as LARC 5-1X comes aboard — November 1959. →

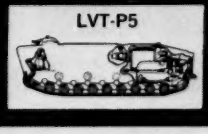
Design, construction, and complete testing was accomplished within 18 months. Write for illustrated specification sheet.

Borg-Warner Corporation

ENGINEERING B-W PRODUCTION

KALAMAZOO, MICHIGAN

INGERSOLL KALAMAZOO DIVISION



REPORT FROM THE READY FORCES

The 2d MARINE AIR WING

PART ONE CONSTANT READINESS

Parts One and Two by

Col Arthur C. Lowell, CO, MAG-24
LtCol William D. Patterson, S-4, MAG-24
LtCol Thomas M. Forsyth, Jr., CO, MABS-24
Maj James M. Burris, S-1, MAG-24

Next month's report: 2d Marine Division

ONE OF THE MAIN PROBLEMS facing ready forces is that no one knows actually what type of war may be launched or how it will happen. No one was able to predict Korea, Indo-China, Poland, Hungary or the Middle East. Tensions throughout the world demand constant and continuous readiness of a balanced mobile force – the Marine Air-Ground team.

To cope with a wide variety of military situations ranging from a cold war through varying degrees of international tension, including general war, a high state of training as well as operational readiness is required.

The Second Marine Aircraft Wing, based at MCAS, Cherry Point, N.C., and MCAAS, Beaufort, S.C. geared its operations to a high degree of readiness training during the past calendar year. At the same time, it maintained the air component of the Marine Air-Ground team, organized, equipped and prepared to deploy to troubled areas of the world on immediate notice.

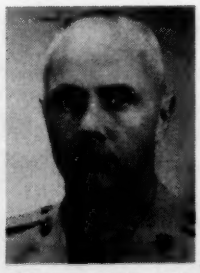
BGen R. L. Kline
AWC 2dMAW

BGen F. C. Tharin
CG 2dMAW

Col J. L. Neefus
Chief of Staff

Col C. W. Somers
Asst. C/S G-1

LtCol A. L. Feldmeier
Asst. C/S G-2



Col D. E. Marshall
Asst. C/S G-3

Col G. W. Herring
Asst. C/S G-4

BRIGADELEX 1-59. F9F8 jets of VMA-533.

Ordnancemen load Mighty Mouse rockets on F9F.

Provisional Marine Brigade Exercises

To strengthen its position in the line of a balanced, mobile force, the 2dMAW conducted a series of major training exercises. Three took place between January and June of 1959.

Brigade exercises consisted of a Provisional Marine Brigade, small and compact, formed to operate with Naval Amphibious Squadron 10. The fast PHIBRON included the carrier *USS Boxer* and four fast LSD.

The purpose of the exercises was to train Marine air and ground units in the new concepts of amphibious assault operations. About 3,000 2d MAW and 2dMarDiv personnel made up the Provisional Brigades. The 1st, 2d and 3d Brigade LEXES included integrated air, ground and naval staffs. The 2dMAW was responsible for conducting the 2d BRIGADELEX and provided the commander and nucleus for the headquarters staff. Specific units were: 1stBn, 6thMarines; supporting units from the 2dMarDiv, Force Troops; a provisional Marine Air Group-14, with VMA-224 and HMR-262 and attached units of Marine Air Support Squadron One; and Company "C" of the 2dReconBn. Air units trained extensively in direct air support and vertical envelopment. Missions also included bombing runs, rocket hops, and long-range navigation flights.

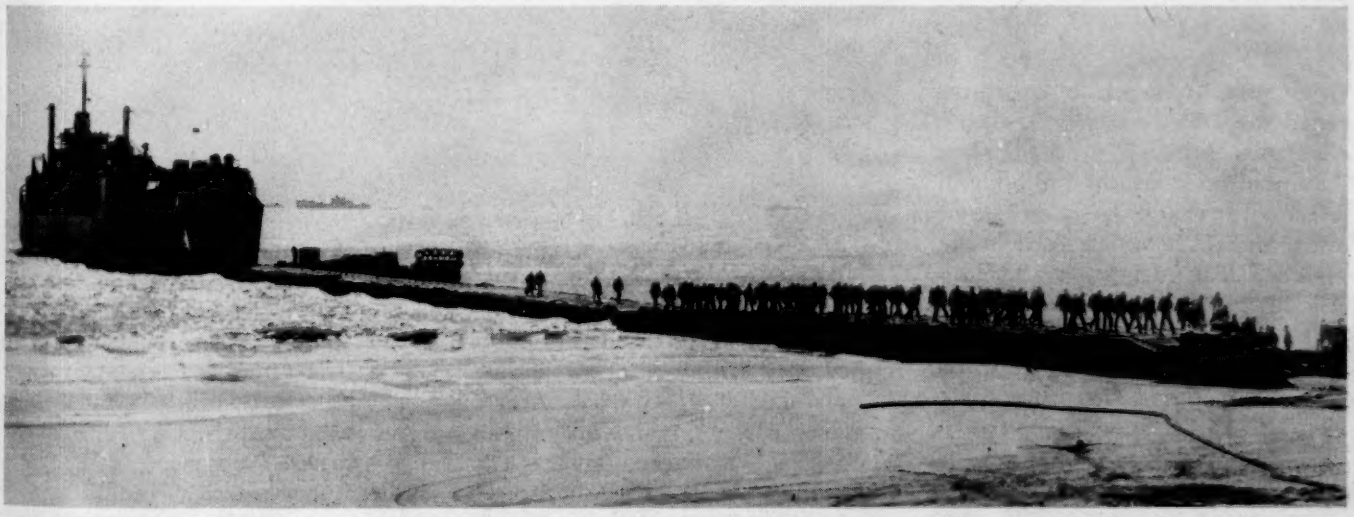
Results from the employment of the Provisional Brigade emphasized that, in peace or war, the primary planning effort is no longer based on preparatory time but on an adverse situation requiring immediate commitment. This and later exercises demonstrated the Navy and Marine Corps' unique capability to assemble a force of combined arms tailored to fit any situation and ready for immediate deployment. Further, units for such operations must be mobile forces-in-readiness. They must be self-supporting, with the organic capability of conducting both nuclear and non-nuclear operations.

Wing Field Exercises

Other exercises, more indigenous to the 2dMAW, were conducted. These included Wing Command Post exercises and TRALEX maneuvers. CPX and TRALEX operations were similar in most respects to those maneuvers used so successfully by Marines in combat. The difference was that participating troops were aviation Marines, more accustomed to working on aircraft engines, radar equipment and parachute rigging than climbing down cargo nets.

The major objective of TRALEX 1-59 was to improve the overall readiness of the Second Wing to carry out its assigned mission. Specific training objectives included experience in out-loading MAG-32 units from the Beaufort-Charleston-Port Royal areas of South Carolina and evaluation of the capability to deploy amphibiously and maintain an air group separately with its units dispersed.

The requirement for certain facilities to be installed expeditiously and for control of the air to be passed ashore immediately, set the accelerated pace for this exercise. Wing communication and air con-



TRALEX 1-59. Second Wing troops debark LST at Onslow Beach (N. C.) in move to Bogue Field.

trol equipment was landed on Onslow Beach, and was in full operation within 24 hours from the time the first element landed.

TRALEX 1-59 also helped develop current doctrine for logistic support of Marine Aviation in amphibious operations. A Logistic Support Unit was attached to MAG-32. It was made of up elements of the 2d Force Service Regiment, a truck company from the 8th MTBn and an engineer company from the 8th EngBn. Primary mission of the Logistic Support Unit was to provide unit distribution to air installations of MAG-32 including MAG-32 field installation set up at Cherry Point and MACS-5 (a part of MAG-32) at Bogue Field. Unit distribution of supplies came from dumps behind Onslow Beach over which they had been unloaded. The distances involved (up to 65 miles) provided a realistic test. Jet fuel was pumped to the airfield site by the Fuel Company of the Automatic Resupply Battalion of the 2d Force Service Regiment. The Amphibious Assault Bulk Fuel Handling System came in over the beach. It pumped fuel 3½ miles from a commercial barge in the Neuse River to the Tactical Airfield Dispensing System of MAG-32. Both systems were emplaced on schedule during the problem exercise. The TAFDS was flown in from Beaufort, S. C., as was a liquid oxygen generator plant. As an additional mission, the Logistic Support Unit of MAG-32 gave unit distribution to the Wing Headquarters at Bogue Field.

This was the first time in the Atlantic that a ground force Logistic Support Unit was attached to a Marine Aircraft Group. The unit moved supplies from the logistic beach to air installation sites. This is a capability not organic to Marine Corps Aviation.

LSD Amphibious Ship

The concept of vertical envelopment, in the planning stages for the past 10 years, culminated when the first LPH (Amphibious Helicopter Assault Ship) was commissioned. However, since outfitting of additional amphibious assault ships will not be completed until 1962, a revolutionary innovation in 1959 was the use of LSD-15, *USS Shadwell,* as a helicopter platform. This assault ship was originally designed for rapid unloading of pre-loaded small craft. The first ship of its kind designated to support helicopter operations, it was used primarily as a research and development vehicle to develop an interim system for ship-to-shore operations until LPH become available in adequate numbers.

Aircraft control and spotting, rapid loading, refueling and tactical flight patterns were practiced and polished until a high degree of proficiency was attained. Such a platform can be used in the absence of the LPH, for limited types of operations.

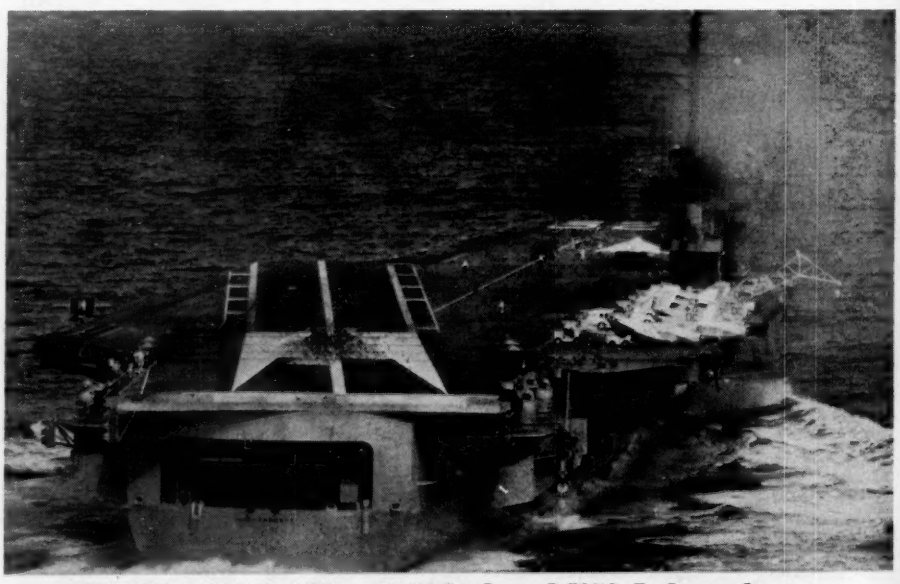
Embarked with eight HUS-1 aircraft from Sub-Unit One HMR (1)—262, MAG-26, the *USS Shadwell* was assigned to the US Sixth Fleet in support of the 3dBn, 8th Marines in the Mediterranean. Like the Mediterranean battalions, helicopter units will be rotated.

Leathernecks at Sea

Leathernecks again proved in 1959 that they could be just as salty as the best-seasoned bluejacket. Integrated Marine and Navy flight crews produced a well-oiled fighting machine with a tremendous capability in furtherance of the Navy-Marine Corps concepts of amphibious support operations.

Marine All-Weather Fighter Squadron-114 was exemplary of Wing Squadrons while operating aboard the *USS Franklin D. Roosevelt,* from January to September. The squadron catapulted to fame by receiving a CNO Aviation Safety Award and the Commandant of the Marine Corps Efficiency Trophy, while at the same time setting a jet flight hour record that topped all carrier-based attack and fighter squadrons in the Med-cruising Sixth Fleet.

The squadron flew 475 hours in 20 operational days during a single month. Of the four fighter squadrons working with the Sixth Fleet, VMF (AW)-114 amassed the most flight hours, with a total of 1,937.



***VMCJ-2, VMFs 333 and 122 aboard* USS Independence.**

Early last fall, Marine Attack Squadron-225, commanded by LtCol A. R. Boag, embarked aboard the *USS Essex* which replaced the Roosevelt in the Mediterranean.

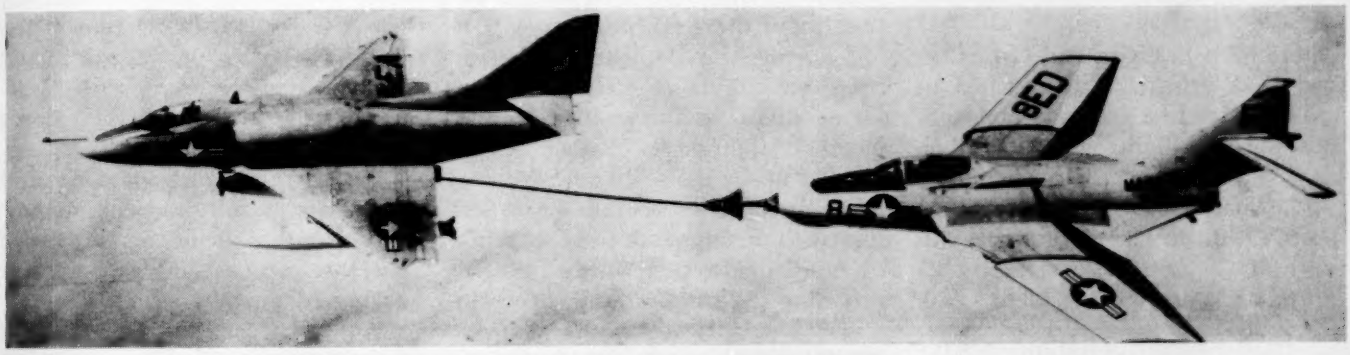
In addition to the deployment of VMF(AW)-114 and VMA-225, major carrier qualification training was conducted by other Wing units. Deployed aboard the *USS Independence* during the period 8-18 September, day carrier qualification landings were conducted by VMCJ-2, VMF-333, VMF-122 and MARS-27.

In-Flight Refueling

Today, as always, the nation's force-in-readiness will have to be there at the right time with the proper weapons. In support of this concept, two F8U squadrons and three A4D squadrons from Cherry Point and Beaufort conducted in-flight refueling training.

Demonstrating a highly effective versatility, these aircraft practiced refueling operations with Air Force KB-50J tankers as well as with the Wing's organic aircraft. The "buddy system" was used in the latter operation. A4D tankers refueled other A4D aircraft embarked on attack missions. A4Ds also refueled F8U aircraft. This ability to refuel with organic aircraft provides the Wing with a self-sufficiency that is at the very heart of the force-in-readiness concept.

Second Wing planes taking on fuel from USAF KB-50J tanker.



F9F8 is refueled by an A4D2 during all-squadron refueling exercise.

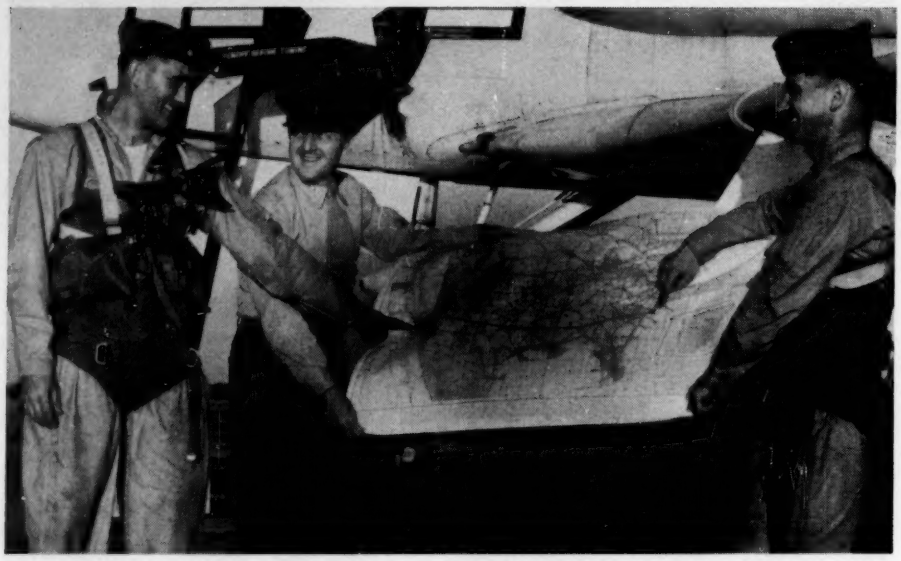
Using "buddy system" of in-flight refueling gives A4D2s added range.

Extensive In-Flight Refueling Missions

OPERATION CRUSADER in June tested and demonstrated the capability of MAG-32 pilots, flying F8U-1 Crusader aircraft, to execute long-range missions effectively and safely.

Pilots of VMF-122 and VMF-312 flew a 3-hour flight based on non-stop transoceanic deployment. Operational requirements of OPERATION CRUSADER involved evaluation of in-flight refueling techniques together with pilot and aircraft factors. Of particular concern was the effect on the pilot of a flight of such duration. Careful conditioning of the pilot, mentally and physically, was necessary to endure successfully the long, gruelling hours strapped tightly to his "chair-in-the-air." Experience from these flights gave the medical department invaluable information which will be used as a basis for setting up standard procedures for long-range flights.

Continued training in long-distance flights begun by the 2d Wing aims to develop and maintain the ability to deploy whole squadrons rapidly and effectively to troubled areas throughout the world.



Col J. R. Little flanked by Capt Warfield (right) and Maj Flynn.

Col Hutchinson and Lt Bailey

Non-Stop Distance Mark

The Second Wing was not without its share of individual achievements in 1959.

Maj John P. Flynn and Capt Clifford D. Warfield, both attached to VMA-225, set a record non-stop, coast-to-coast flight without refueling.

The pair flew from MCAS, El Toro, Calif., to Cherry Point, a distance of 2,082 miles, in 4 hours, 25 minutes. The record flight took place in January with A4D Skyhawk aircraft, a single-engine jet.

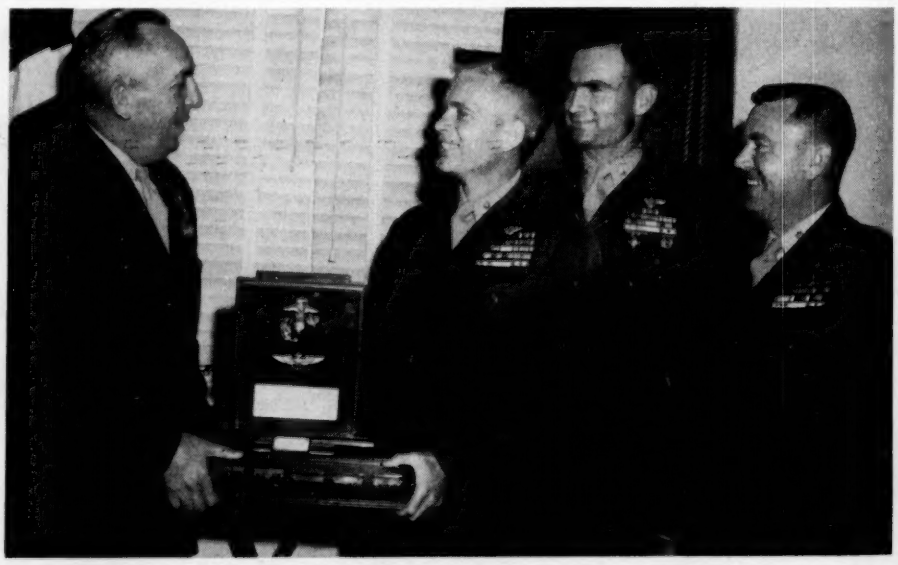
Underscoring the long range capability of the A4D, pilots of VMA-332 during May deployed to Argentia, Newfoundland, in preparation for a flight spanning the stormy North Atlantic to Rota, Spain. Backed up by their "buddies" flying A4D tankers, the operation was designed to demonstrate the feasibility of rapid deployment using in-flight refueling techniques and to train pilots in long-range navigation procedures.

Col Homer G. Hutchinson, Jr., then CO of MAG-24, and 1stLt George N. Bailey, Jr., also of MAG-24, made the overseas flight. In accomplishing their Marine Corps First, the pilots selected a flight ferry path to use only Marine and Navy bases. Self-sufficient deployment was the theme of the flight. Little or no outside requirement was placed on other services.

Safety Awards

Major commands which competed for the new permanent CNO Annual Aviation Safety Award were Naval Air Training Command; Naval Air Force, Pacific; Naval Air Force, Atlantic; Naval Air Reserve Training Command.

The 2d Wing won one out of six of the CNO awards in the fighter class, and one of four training class awards. This was one-half of the total allotted to ComNavAirLant in the VF and training competition classes. Units receiving the awards were VMF (AW)-114, then commanded by LtCol Mark Jones, and Marine Training Squadron One, commanded by LtCol Phillip DeLong.



Gen Pollock, LtCol Jones, Majs P. B. Montague and C. P. Blankenship

The awards were based on the safety point scoring system. Factors considered were based upon flying hazards faced by each activity, success in aviation accident prevention, and the maintenance of combat readiness and high morale.

VMF (AW)-114 was later singled out for the Commandant of the Marine Corps' Aviation Efficiency Trophy for Fiscal Year 1959. The award recognizes the squadron's excellence in the performance of its assigned mission and its outstanding flight safety record, in-flight safety and accident prevention.

By tradition and mission, the Marines are a force-in-readiness. Inherent in this is adaptability to meet the demands of modern warfare. The 2d Wing is constantly improving techniques, tactics and equipment to insure operational readiness. USMC

REPORT FROM THE READY FORCES

PART TWO PROGRAMS TO IMPROVE READINESS

NEXT YEAR'S READINESS GOALS AND OBJECTIVES FOR the 2d Marine Aircraft Wing must reflect the vital concept of obtaining the highest possible effectiveness from every man and each item of equipment. Both reduced manpower and more complex equipment require new approaches and techniques. We must increase the effectiveness of our available manpower and facilities. The alternative—vertically cutting units—reduces the overall Marine Corps effectiveness. It should be a last resort. Particular emphasis must be placed on the best use of all available skill and equipment.

Locating Critical Skills

The Military Occupational Specialty system as presently used may be adequate for promotion and general planning purposes. It does not satisfy the urgent need to identify Marines with the specific skills required for operation and maintenance of complex aviation equipment. This lack of ready identification detracts seriously from readiness and efficiency. First, it is hard to make proper assignment without extensive review of the Service Record Book and personal interview. Second, there is no rapid means of identification within occupational fields for specific areas of skill, knowledge, experience level and type of training.

To improve the readiness of the Wing, individual skills must not only be used effectively, but must be rapidly identifiable for immediate assignment when required. The problem of proper assignment becomes particularly acute when a unit is deployed on short notice. The unit may go from manning level to T/O in a matter of hours. The personnel officer hasn't time to screen service records to ascertain the skills needed. As a result, the commander receives a parcel of people who are within the Occupational Field specified. These may *not* possess the skills required for the commander to operate his equipment effectively in the field.

Another problem is identifying specific skills an individual has acquired when the MOS doesn't specifically cover the skill area involved. A startling, but not unusual example occurred in the attempt to locate men trained in the operation and maintenance of the Liquid Oxygen Generator equipment which provides life-sustaining breath to pilots at high altitudes. Without proper continuous functioning of this equipment, the Wing mission of supporting the Fleet Marine Force is drastically affected. Yet school-trained Marines to operate and service this equipment were scattered among many MOSs. Finding men then required a time-consuming record search or interview of men in the MOSs of Utilities, Refrigeration, Engineer Equipment and Flight Equipment. Locating such specialists takes too long during pressure situations when rapid reaction is needed.

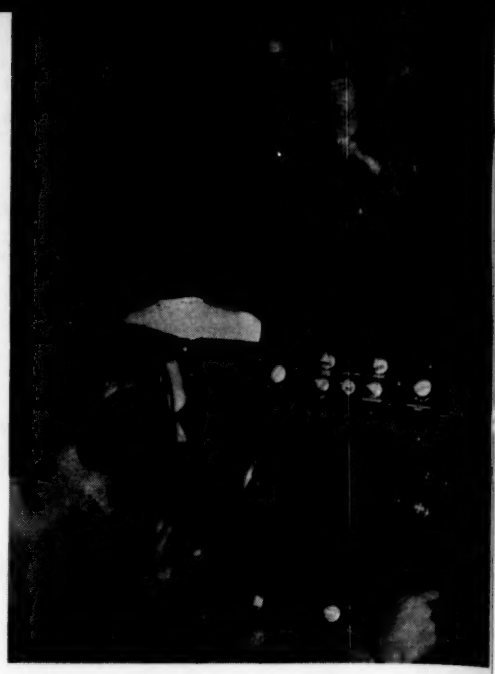
Trained Marines are vital to operate and maintain oxygen gear.

After finding the man with the required MOS, we must determine how up-to-date his experience and training is. So the MOS identifies the individual as a jet mechanic. What is the extent of his training by type engine, e.g., J-33, J-48, J-34, J-57, J-65? How long has he worked in the field? What is his current level of proficiency on a particular model of equipment? This information cannot be indicated by the present MOS system and has to be determined by some other method. In many instances this is difficult because either the man or his record is not available.

The present MOS structure does not reflect the degree of specialized training received. Some occupational fields are so broad that it is almost impossible to identify formal school training or special skills. In aviation there is considerable special equipment which requires technical operator and maintenance training. Factory and on-the-job training levels are often not reflected in assigned Military Occupational Specialties. Needed is a simple method by which an individual may be categorized and located according to his knowledge and skill specialties within a given occupational field. All this without extensive administrative effort.

In order to help alleviate the situation discussed above, the 2dMAW has devised a Skill-Number system to be used in conjunction with each technical MOS. This system should provide a maximum of information on a man's experience, types of equipment he was qualified to operate, and his training. It will use digital indicators. These could be processed by the Data Processing Installations in the same manner as an MOS. During the past year, the Wing used this system to identify men with their skills in the electronics and communication fields of Marine Air Control Squadrons. A four-digit number, called a Skill-Number, was assigned to each man on the basis of information in the service record book and personal interview. The first digit showed the time in years up to nine that the man worked in his primary military Occupational Field. The second showed the years spent working in his specialty within his field. The third and fourth digits, together, identified the equipment with which he was proficient and how he received his training. An indicator sheet, provided for each MOS, described the equipment which these last two digits, numbers from 00 to 99, represented. This Skill-Number was placed immediately after the primary and secondary MOS. The first digit, 8, of his Skill-Number shows the number of years in that field. Thus a MOS 2741—Skill-Number 8362 would show a radar technician by MOS. The first digit, 8, indicates 8 years in the 2700 field, the second digit, 3, indicates time in specialty, 3 years as a radar technician, and the third and fourth digits together (62) showing, (by reference to the indicator sheet) that he was "B" school trained and qualified with at least one year experience on the AN/TPS-10, AN/MPS-11, AN/MPS-16, radar sets.

This four-digit Skill-Number worked reasonably well, but it had many limitations. These were mostly due to the complexity of the equipment covered by each MOS and the need for describing schooling. It was planned to keep the quantity of digits in the Skill-Number the same as in the MOS to facilitate electronic data processing. However, the variables in quantity of equipment and types of schooling required three digits rather than two. This meant a five-digit Skill-Number. Data Processing Installation could use a five-digit number. Substitution of letters offers more information, but an undiluted numerical system was retained for simplicity.



Mobile radar team at work.

The five-digit Skill-Number system is now being developed in other aviation technical fields within selected units of the Wing. When the problems are resolved and the details of assignment of Skill-Numbers are assembled, a directive will be issued on methods and procedures for Wing-wide use. If successful within the Wing, a proposal for its use will probably be made to increase the effectiveness of technical personnel on a Marine Corps-wide basis.

The 2d Marine Aircraft Wing has a Data Processing Installation readily available. Implementation of the Skill-Number will reduce problems in assignment of technical personnel. The Skill-Number tabulation will provide commanders and personnel officers with a simple basis upon which to assign Marines and evaluate personnel readiness. The use of Skill-Numbers should improve the readiness of the 2d MAW by effectively using available skills and by permitting the rapid effective assignment of skills in an emergency.

Improvement in Readiness of Air Control System

Caesar is reported to have been dissatisfied with the caliber and duty performance of his centurions. We still seek to solve similar problems. We seek most to replace less manageable numbers of men with the more manageable minimum of experts. This problem is constantly aggravated in aviation units by the concurrently increasing complexity of aviation equipment. Not only are the aircraft themselves complex; but, the complexity of the equipment required for air control often exceeds that of the aircraft.

The 2d MAW has satisfactorily completed the transition from propeller to jet aircraft in tactical squadrons.

However, the transition from electronic equipment and air control system required in the propeller era

to that equipment and control system required in the new environment (jet and helicopters) is just beginning. Readiness to satisfy the 2d MAW mission requires readiness of the air control system as much as any other element. This transition requires accelerated reevaluation of present methods and organization.

One of the first problem elements to be tackled must be that of organization. Under the "M" Series, air control units and agencies are organized in various units and sections. Responsibility for these agencies, equipment and training is similarly divided. The Wing Commanding General has assigned responsibility for these agencies and their functioning to the Marine Wing Headquarters Group. Now *one* commander will be responsible for making the above transition as well as for making all elements of the air control system "ready for operations." Technical supervision is exercised by the Wing Communications-Electronics Officers. This concept was tested in a 1959 Wing amphibious exercise. The air control system was established ashore much faster. In addition, the centralized facility remedied communication breakdowns faster.

Inside Cherry Point's control tower.

For organization we need a single commander. Also, we need coordination, since air control is a service function provided for all Wing aircraft units. For this coordination, an "Air Control Committee" was established consisting of the Wing Operations Officer, Wing Communications-Electronics Officer and Group Commanders. This provides the "users"—aircraft group commanders—the opportunity to discuss problems directly with the "provider,"—the Marine Wing Headquarters Group Commander. It also affords the Marine Wing Headquarters Group the means to bring out problems which the air control units have had with aircraft equipment or pilots. Much information for the committee is available in the compilation of special reports filed by the pilot and the Ground Control Intercept controller after each intercept flight. Special air control debriefing forms will be provided eventually for all flights. These reports, compiled in statistical form for the period between committee meetings, indicate the effectiveness of the air control effort. Of particular concern is the resolution of the age-old problem of isolating real causes of malfunctions in communication and IFF operation. If only a few aircraft of one squadron report trouble on debriefing, the statistical summary shows this. The cognizant aircraft commander can take appropriate remedial action. Likewise, if repetitious difficulty is encountered with a control station, the Marine Wing Headquarters Group Commanding Officer recognizes his problem of air control.

In addition to the many problems connected with organization techniques, there is the problem of equipment maintenance and performance. The quality of radar and communication equipment performance largely determines the readiness and effectiveness of the Wing, Groups and Squadrons. So we need continuous quantitative measurement of system performance.

The automatic devices for giving this direct measurement will be installed—new equipment. But it is not available now. To provide capability guides, performance charts for each radar are used. These give the range at which an aircraft of given type theoretically should be detected. By comparison of the actual detection range with the manufacturer's predicted detection range for the type aircraft, a continuous qualitative indication of radar performance is obtained. Similar charts are prepared for other major electronic components.

It is important to evaluate performance of air control instruments. More important is the requirement to achieve high level performance and maintain it. Present electronic equipment offers few indications to the human senses of ailments or effectiveness. The commander is seriously delayed if he requires an operational exercise to determine current effectiveness. Extensive operational testing of equipment and interpretation of results was the old approach. It is still the most thorough approach, but requires more time and effort than we now have. So, a method of insuring continuous quality control of operators and equipment has been tried. This involves qualified "Quality Control Officers" at each control center to check and maintain units and system performance above prescribed minimums. To provide guidance for these officers, a Quality Control order was published which outlines for each item of electronic equipment, desired and minimum acceptable readings or indications on all meters or indicators. In addition, techniques are outlined which provide standards for checking and maintaining the effectiveness of radar operators and others who detect and report targets. USMC

YOUR TROOPS WANT BETTER TRAINING

By ASSgt James W. Rider

ONE OF THE MANY PROBLEMS which faces the modern Marine Corps is that there are more things that the individual Marine must be proficient in than can be handled by a 40 or even a 48 hour-a-week training schedule. There are more skills for the Marine infantryman to learn and practice than can be assimilated by the average American. The jammed-full training schedule either doesn't leave enough time for normal housekeeping duties, liberty, and care of personal weapons, clothing and equipment, or it is deficient. The completion of the training schedule, that is, the fulfillment of training commitments, has become the primary goal in many organizations, with the accompanying sublimation of the real purpose of training—the production of capable, professionally competent Marines.

This is no small problem. Every Marine must be proficient in certain common areas. The specialists must go beyond these areas, seeking proficiency in their own field; and we are all specialists, from the BARman to the Radar Technician.

Every Marine must be able to effectively employ his weapon. We have always prided ourselves in our marksmanship ability and have never had to be reminded that we must continually improve. We must all be expert in our own personal jobs. The rifleman must be a member of the fire team, more than just an individual soldier. The radio operator must be able to operate his equipment with the greatest skill and economy of time possible. The NCO must be the effective leader of all his men.

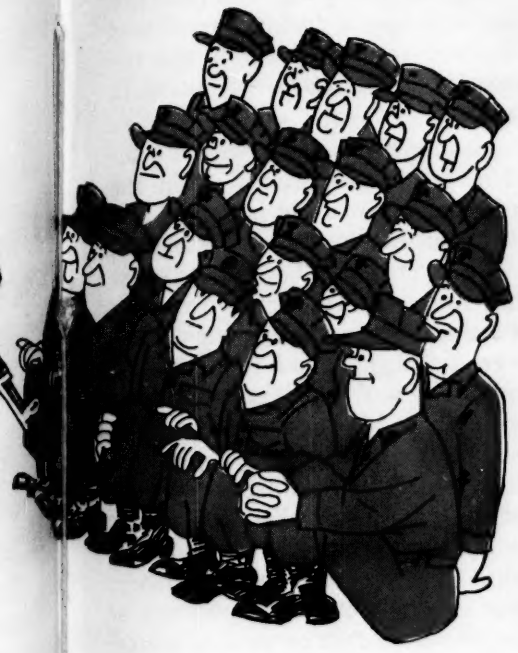
And there is a multitude of military subjects that we must all be more than familiar with: Camouflage, Individual Protection, ABC Warfare, Escape and Evasion, Scouting and Patrolling, Cold Weather Tactics, Night Fighting, and on and on.

In addition to being an expert on how his job must be done, each Marine must be in top physical shape so that he can perform his duties at optimal efficiency under all conditions.

Unfortunately, we aren't all as proficient in every aspect of being a Marine as we should be. It is not necessary to belabor the point that a man must work, and work hard to be worthy of wearing the uniform and bearing the title of a United States Marine. But we must not make it harder than it has to be for a man to reach the minimum required ability level. We must remove the unnecessary barriers often encountered when working toward that goal. It will never be easy to become a real Marine, but it can be made easier by improving our training methods. And while we're at it, we can make better Marines.

Let's not worry about boot camp and let's not tamper with the methods of training too much. Our drill instructors have been turning out a fine product for a long time and it seems to be steadily improving. But let's take a real good look at what we are teaching our Marines.

Some of the things we teach him don't mean too much to the average seventeen-year-old. For instance, does every man coming out of bootcamp know what muzzle velocity, chamber pressure, maximum ordinate, and a hundred other terms really mean? I don't think so. Still, he has memorized a whole list of facts and figures involving these concepts. Some of them are of absolutely no value, other than of being a ready reservoir of answers to be supplied for inspecting officers' questions. Now, we have two solutions to this. One: ex-



Are leaders overlooking something about training: that their men like it tough, realistic? It's why they chose the Corps.

plain carefully every concept used, making sure every man understands it. Or two: delete all *unnecessary* information from the training schedule and substitute more important information for it, or substitute some practical application of the most important ideas so that every man really understands them. The latter alternative seems to be the only sensible solution. If we can eliminate a lot of the foolish memorizing that goes on in a lot of our training and substitute more practical application, we will have come a long way in making better Marines.

We also teach the average Marine a lot more than he has to know on some subjects. In many commands each Marine gets thorough training in ABC Warfare. He knows what the different types of atomic blasts are, what a chain reaction is, how many kilotons are in the latest bomb, what the antidote for nerve gas is called, and he can probably recite the definition of biological warfare. Yet his training on what to do in the event of an atomic, biological or chemical attack is limited. Often, he has merely written down the steps to be taken and has never gone through them in a simulated situation. The solution to this dilemma is to eliminate the "useless" training. Don't dress up the class by giving extra information that doesn't really concern the man. We can't afford "window dressing" or "eye wash" at this stage of the game.

One of the easiest ways to get around our present dilemma is to give every man more thorough training in his individual job. Make sure the cook knows what chow he can use when he finds out that he is in a germ-contaminated area. Teach the artilleryman how to decontaminate his howitzer when it is covered with a blister agent, and teach the infantryman, private and colonel, how to react to an atomic blast. Where the training overlaps and where feasible, combine it. Don't forget that every Marine is an infantryman, but don't forget that he's more than an infantryman—he's an expert, a specialist in his own MOS. So train him with his MOS in mind.

I think most officers and NCOs are conscious of the limitations of the classroom methods of teaching. It should be supplemented by as much demonstration and practical application as possible. Once a unit is thoroughly grounded in the essential background information, concepts and philosophies of any particular military subject, put it to work. Let them use what they have learned and correct the mistakes they make. It is better to have a man camouflage a position than to have him memorize the seven principles of camouflage. Of course, if he knows the seven camouflage principles and is told to employ them in digging a field fortification, even more is accomplished. But you can't make a soldier in the schoolhouse. He has to apply what he learns in class.

The best place for this application is in the field. The man will not only learn faster and more thoroughly, he will also learn in the environment in which he must use this new knowledge. As an example of this, one can elaborate on what Lt Gen Puller said about night warfare:

> *If we are to win the next war, I would say that from now on, fifty per cent of our training time should be allotted to night training.*—Night Battalion, by Maj W. J. Davis (GAZETTE: Dec '58, p. 14.)

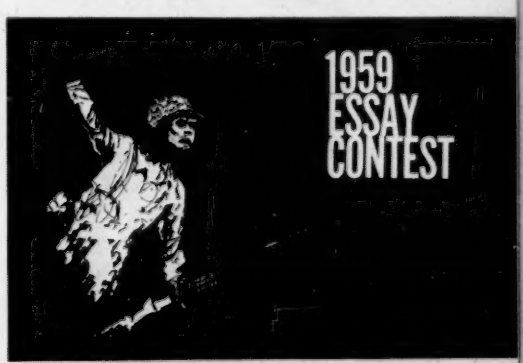
Now you can't teach very much about night fighting in a classroom at 1330 hours. You can tell a man, over and over, that he mustn't look at a flare when it goes off, but until he has heard a few pop over his head, he'll keep looking instead of watching in front of him. You can draw diagrams, pictures of feet, and rules for walking, all over a blackboard, and not get across what fifteen minutes of stumbling around Horno Ridge on a moonless night could do.

I am not condemning classroom training completely. But I do think a lot of it could be eliminated. We should have just enough of it to get the basic ideas across, and use the rest of our time putting these ideas to work in the field. A good rule to remember along these lines is that "Theory without Practice is empty, but Practice without Theory is deadly." The theory part can be picked up anywhere, but the practice should take place in the field.

LtCol Greene (GAZETTE: Apr '59) described the ideal training conditions when he said:

> *The leader who really wants to make his men want to train must emphasize three-dimensional, high-fidelity training. This means getting away from the one dimension of the classroom to a full simulation of the battlefield by sight, sound, smell and touch.*

In other words, we want the Marine



Group IV Winner

2dLt Rider was commissioned through PLC shortly after submitting this article in the MCA Prize Essay Contest. He was then an ASSgt in the Reserve and attending Cornell Univ. The essay took top prize in Group IV category. He was also first in his class in Senior PLC and won the DAR's PLC Leadership Award. After graduation from Basic School in May he will report to 2dITR at Camp Lejeune.

to learn in the same environment he will have to fight in. This way there will be more carryover from the learning situation to the battlefield.

This brings me to my second major point. Who is going to do the teaching? Should we have a specialist with a very thorough knowledge of what he is going to teach, who does nothing but instruct in the particular subject or subjects he is proficient in? Yes and No. It would be wasteful to have a huge staff of instructors at regimental S-3 who did nothing else except conduct classes. Besides, this job can get tedious, and the monotony the instructor feels very often gets carried over to his class. But we do have specialists available: the individual's own fire team leader, his squad leader, his platoon sergeant, and the individual himself.

I have to include here the trite saying, "We learn by teaching." But it's true. I was never exactly sure just how the accelerator worked on the M-1's Operating Rod Catch Assembly until the day I tried to crawl inside the weapon, answering a recruit's question. Greater use of junior noncommissioned officers and non-rated Marines filling NCO billets does more than give us the better training which comes with more individual attention and free discussion. It also makes our NCOs more expert in the skills and knowledge that their men must have. Also, the squad leader knows who needs individual attention in his squad. He pretty well realizes how much his men know about a particular subject and doesn't bore them by repeating the same thing over and over. Nor will he go too far afield, too fast. And of course we will do more to enhance the NCO's position and rank by making him a teacher.

So far I've managed to dodge around all of the problems involved in these ideas. I'll attempt to answer the biggest question that I hear the reader asking.

What's to guarantee that the training will be employed effectively in the field? How do we know that the troops won't follow the path of least resistance by going through the motions and quitting as soon as possible? Will ACpl Numbnose conduct a class on scouting and patrolling, or is his squad going to sit under a shade tree and tell jokes, like they did the last time we tried this? How would you make something like this work?

The answer is check on the troops, or as the seventh troop leading step says, "Supervise!" A squad leader will check and make sure his fire team leaders did a good job on the class on the .45 if he thinks the platoon sergeant is going to check on him. Capt Baker will check on Lt Able if he thinks Maj Bravo is going to be snooping around. Col Charlie is going to be darned sure his troops are on the ball if a spy from Division turns up once in awhile.

Spot checking classes helps guarantee good instruction. When the "old man" sits in the back and asks questions, LCpl Alfa and LtCol Zulu are both going to be doing a good job. And when someone with another stripe, bar, or star is liable to walk over the skyline and look at your unit's position, you're going to make certain that it's camouflaged, tied in, organized, and in the right place.

As a guide to training ask yourself this question: just what do you want to teach each Marine? A lot of jargon, facts, figures, and knowledge that may be useful at inspections, in classrooms, and on promotion exams? Or do you want to teach him how to be an effective member of a fire team, artillery crew, or supply section?

The quickest way to come to top training efficiency is to look at your unit. Determine what they have to know. It's plenty. Teach them that. But teach them thoroughly. Make sure they won't forget it the day they come ashore at Vladivostok, Wonsan, or Peking. Then you'll have men under you worthy of being called Marines, and you will be worthy of being their leader.

The Marine Corps places more emphasis on physical conditioning

Outdoor classrooms are vital for training in scouting and patrolling.

now than it ever did in the past. This is good, but we must look closely at the ultimate goals of our physical conditioning. We want a man who can carry a Browning light .30 for twenty miles, who can charge up a hill with a BAR, and who can undergo long hours of strenuous marching, fighting and work. There is nothing in this job that requires push-ups, squat thrusts, or the 440 without rifle, armored vest and helmet. We can and must integrate physical training and physical evaluation into our field problems. High Physical Evaluation scores must remain a secondary goal. Our primary aim must be overall combat effectiveness, and this involves excellent physical conditioning for all hands. I do not argue that we should do away with Calisthenics, "P.T." and the Daily Dozen, or even the Physical Evaluation Tests. But we must remember why we use them.

I would like to see the following kind of test used in conjunction with the one we now have. Uniform: utilities, boots, armored vest, helmet, rifle, full cartridge belt, bayonet, full canteen, first aid packet, entrenching tool, and protective mask. The final score would be based on the speed at which the individual:

1. Crawled 100 yards.
2. Crept 100 yards.
3. Moved 100 yards through water three feet deep.
4. Ran one-half mile.
5. Hiked five miles.

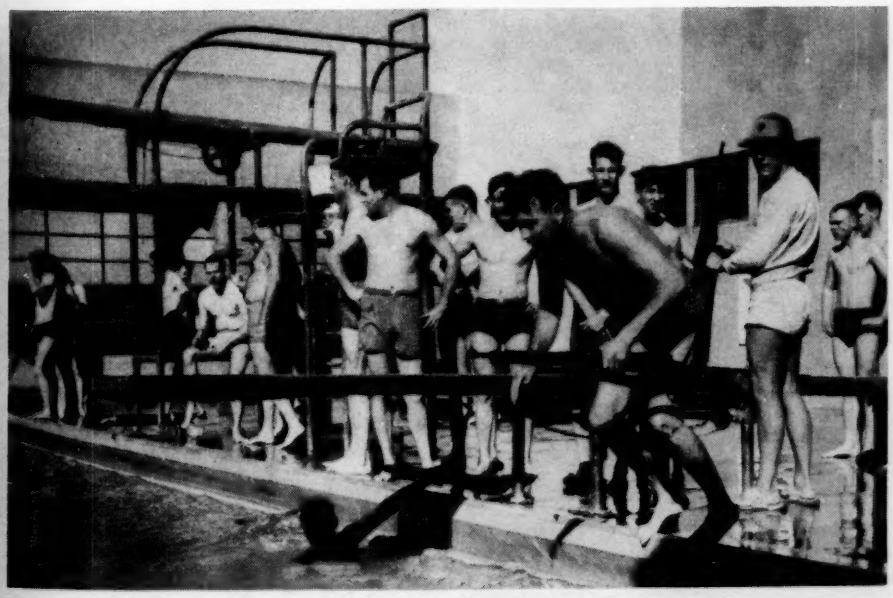
Physical fitness tests should be designed for Marines.

6. Ran 200 yards, crawled 25 yards, crept 25 yards, waded 50 yards, and hiked one mile, wearing the M9A1 Protective Mask.

This would be a test designed for Marines, not gymnasts or track stars. The scoring of such a test would have to be worked out using a sample group of average-conditioned Marines. Its primary aim would be to see just what each Marine could do in combat.

There are also better ways of maintaining good physical shape. Organized athletics can be more effective than monotonous physical drill in building stamina, timing, and muscle power. Much of our physical conditioning can be achieved during off-duty hours by encouraging and organizing more intramural athletics. We could follow West Point's example by requiring that all persons in Officer's Basic School and Recruit Training be proficient in two or more sports. Sports *within* a training schedule, besides relieving the monotony, encourage off-duty participation and practice. I know we have Organized Athletics every week, but what the troops call it in most units is very appropriate. Officers and NCO's who encourage all hands to participate, and who vigorously enter into games, improve their own physical shape as well as that of the troops. Additional values mount up: better morale, comradery, teamwork, and *esprit de corps*.

Marines are always quite active in sports. But now we're getting too much like college and high school. The "jocks" are the only participants. Some men make a career out of being on Division football teams, while others never get closer to a game than the bleachers. We have a fine intramural sports setup now. The only thing we have to do is

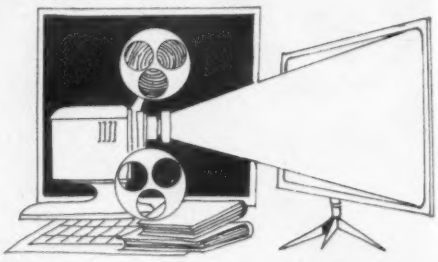


Combat swimming is more than a cool dip on a hot summer day.

bring it to a lower unit level and get more people playing. More interplatoon competition can help. All first squads playing all second squads involves more Marines than Alfa Company playing Bravo Company. Everybody gets a chance this way. The best squads can play off against each other, and it would be possible to have a division championship for squad football, baseball, or basketball. This would mean that every gravel cruncher would get into a game. Each Marine would be playing along side of the men with whom he may go into combat. Result: greater development of the already mentioned military virtues of comradery, teamwork, and *esprit de corps.*

The same thing can be done with rifle marksmanship. Encourage off-duty firing by providing a range, ammunition, and cleaning equipment. Competition could be brought to lower unit levels by providing trophies for the squads and platoons with the highest average score in each division. This might mean a little more work for someone, but it would make every squad realize just how important shooting ability is.

We can take a tip for further use of off-duty hours from the civilian movie theaters around Marine Bases. Did you ever notice what movies are playing in Oceanside and Jacksonville? It's usually *Gung Ho, Retreat Hell, The Sands of Iwo Jima, Battle Cry,* and so forth. Marines like Marine movies. And such films do serve a good purpose; they build pride.



We can get more concrete training done after 1630. Once one of our movie operators who was on restriction set up a screen in the barracks and ran films for a couple of hours every night. For the most part they were old Armed Forces Information films that dealt with the European Theater during WWII, but they always drew a large crowd. If units showed some of the more interesting films one or two nights a week they would get a good audience, especially from the section that did not have liberty that evening. By interesting films I mean the documentary historical films, and the more dramatic training films, such as the now obsolete *Late Company B.* And if our Post Exchange theaters started showing more commercial films about the Marines, I'm sure business would increase, and I know we would have increased spirit among the troops. Maybe they could run one Marine Corps movie every week. There have been a lot more than 52 Marine Corps films made since the first edition of *What Price Glory?*

The third area of off-duty training is probably the most important, because this is where the greatest actual training potential lies. We have recognized that many marines do not plan on making the Corps a career. We have even faced up to the fact that many of our Junior NCOs will get out. But we've forgotten that a lot of them do want to stay in, and that even those getting out want to get promoted. So, why not run a night school? A program specially designed for helping people pass their GMST promotion test would be the answer to many a Pfc's prayer. We need a few ironclad rules. One, keep the training interesting and relatively informal at all times. If the student enjoys the classes, he will learn more and will interest other people in attending them. Two, give the student some recognition for finishing the course and reward those with the highest class standing. Certificates of accomplishment don't cost much, but they can mean a lot to the Marine who receives one. Three, safeguard against people dropping out after a few weeks by requiring a deposit of a more-than-nominal sum (say $4) to be forfeited if a certain attendance record is not maintained. The Marine Corps Institute and Extension School courses are a valuable supplement to the training program. They provide a course of study to follow, materials, homework, and the rewarding certificate. If the graduates of such classes had a good record for passing promotion exams, additional incentive would be provided for taking the course.

There are many professional noncommissioned officers interested in improving themselves and the Marine Corps, who could profit from similar off-duty training. A seminar limited to a few NCOs could be conducted on any number of subjects, with leadership probably being the biggest drawing card. With the right kind of instruction, case studies, role playing, incident processes, buzz sessions, and all the other modern auxiliaries to teaching and learning could be employed. A little more human relations wouldn't hurt the

Cold weather training at Pickle Meadows, Calif.

Marine Corps. It could mean higher reenlistment rates, more interest in work, and greater efficiency in day-to-day operations. The keen competition that prevails in the Corps practically guarantees that once a few NCOs took advantage of such training, most of the others would follow. There is only one if, but it is the biggest *IF* that faces any educator anywhere. The others would follow *IF* the course was interesting, down-to-earth, and directly applicable to their own problems.

Most military training consists of habit training, that is, response conditioning. This training can make the difference between battles won and lost, and could even determine if your grandchildren grow up in a town or a commune. Habit is all-important and must be treated so. Let's take a good look at it.

Habit comes from the repeated stimulation of specific circuits in the nervous system. From habit, certain actions can become second nature. Immediate response to certain stimuli is the result of habit training. Through constant training we can build up the response to battlefield stimuli. A Marine can be trained to hit the deck instead of sticking his head up and looking around when he hears a rifle shot. He can be trained to grab his protective mask when he detects certain odors, and he can be taught to take immediate cover when he sees the "white flash" of a nuclear detonation. We must instill proper habits in our Marines; habits that are proper on the battlefield. If every Marine camouflages every position he ever digs, he won't know how to dig one that isn't camouflaged. If we train him to mask when he smells new-mown hay, or to hit the deck when he sees a white flash, and have him repeat the process over and over, you won't be able to get him to do otherwise. It is important to instill only good habits, because a bad habit reinforced by training is difficult to break.

Habit training as a means of securing desirable conduct is good as far as it goes. But the trouble with habit training is that it is not likely to carry over to other types of situations and behavior and it is impossible to build specific habits to take care of the manifold situations which the trainee is certain to encounter.

No room for window-dressing in a realistic training schedule.

What we must strive for is an ideal to go along with the habit. When we use Close Order Drill for instilling discipline, we must let the troops know why we are doing it, and why perfect discipline is essential to them and to the Marine Corps.

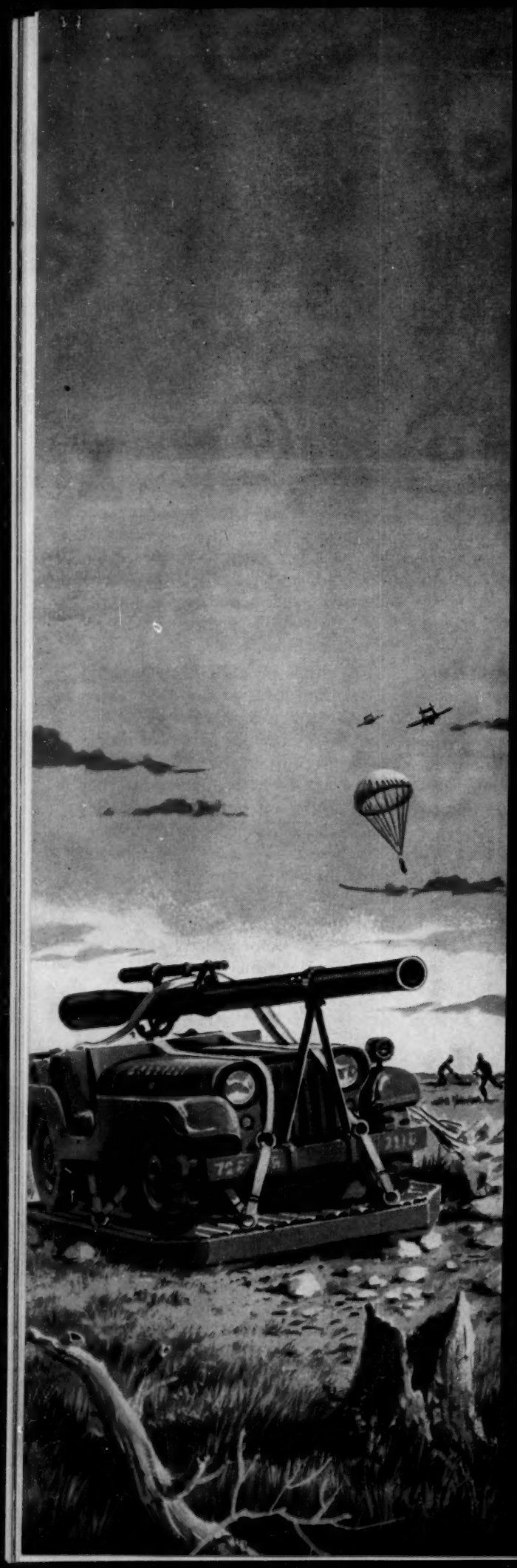
Now, if there is one word that makes every gunnery sergeant in the world shudder, and usually throws the first sergeant into a rage, it is "why?" But we must tell the troops the why and whys of our training if we expect them to really get anything out of it. We'll have to even tell them why there will be times that they can't ask "why?" You would be surprised how often they really don't understand what's going on. Maybe it's obvious to you, but it may not be to them. Also, if you have to explain why you're teaching them something, you may begin to wonder why yourself, and may thereby eliminate some useless training.

Lt Delta, graduate of the Engineering Physics school at Ivy League U., have you ever asked yourself why you got into Einstein's theory of relativity when you gave the ABC lecture to Company "E," 1st Marines? If the troops wanted to learn something like that, they would have gone to college instead of enlisting in the Marines. You, Lieutenant, are wasting valuable training time. Instead of teaching them something they can't use, you could be teaching them what some day may save their lives. If they die because you didn't cover the proper thing in class, you are a criminal. And you, too, Sgt Echo, if you tell sea stories about what happened on Iwo or the Hook instead of teaching them what they must know about land mines.

The thing we must keep in mind in training Marines is the reason why these men came into the Corps. They wanted to be part of a tough, hard-charging outfit that doesn't take a backseat to anyone. If they were afraid of hard training they could have found a few easier branches of the armed services to enlist in.

It is up to *you* to give them the kind of outfit they want. Don't worry about their motivation. They enlisted in the American armed force with the toughest reputation and they're willing to do their part to live up to that reputation. But you have to help them. You Corporal, and you Lieutenant, and you, too, Colonel. We said that we wanted to be efficient warriors, masters at our trade, the day we enlisted. Now it's up to you to help us.

We want to be experts in the things we must know, like how to fire a rifle, camouflage a position, or lead a squad. We'll pick up the interesting, but non-essential "fringe" information on our own. We want to be trained thoroughly in what we have to know, and let all that extra stuff be damned. We'll do our jobs on the receiving end of the training and we'll do it as best we know how. Will you give us what we're looking for—better training? USMC



NEW BATTLEFIELD MOBILITY FOR CREW-SERVED WEAPONS

WITH THE VERTOL 107

The twin-turbine Vertol 107, prototype of the army YHC-1A light tactical helicopter, is giving new meaning to an old word — mobility.

In "shoot and scoot" tactics for crew served weapons, the YHC-1A can swiftly transport three 106mm battalion anti-tank rifles each with 4-man crew and ammunition. Terrain is no obstacle. Each crew and weapon can be dropped off at pin-pointed firing positions to ambush advancing armor with convergent fire. Within minutes they can be scooped up and redeployed to engage another target miles away.

With its rear loading ramp and unobstructed payload compartment, this helicopter has the ability to airlift a complete Little John system and crew, laying fire on a target 60 miles away 35 minutes after receipt of orders.

Vertol's advanced YHC-1A and the forthcoming YHC-1B (Chinook), provide battlefield transportation which equals the advanced firepower of MoMAR — Mobile Modern Army.

VERTOL *Aircraft Corporation*

MORTON, PENNSYLVANIA

SUBSIDIARIES: ALLIED RESEARCH ASSOCIATES INC. BOSTON MASS.
CANADIAN VERTOL AIRCRAFT LTD. ARNPRIOR ONT.

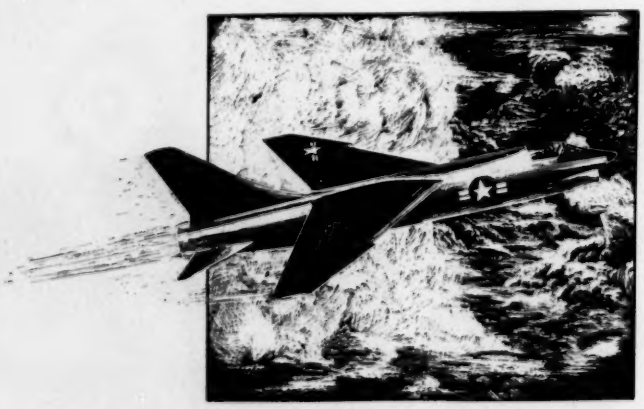
U.S. ARMY VK-1

GOOD HEAD

SOME SOUP RECIPES

The Thinking Tiger bestows his highest accolade "Good Head" for ideas that make good Marine pilots better. Send ideas c/o GAZETTE.

MOST AVIATORS LIKE TO THINK OF THEMSELVES AS individuals, and many of them qualify. LtCol John Glenn, though, is in a class by himself. Many of us were disappointed not to be selected for Project Mercury, but we had to admit that John was a perfect choice. Many will remember the F9F which he landed in Korea with more than 150 bullets through it. A few years later he lost about one third of the starboard wing of one of the early F8U's. It came apart while he was firing the guns at supersonic speed. He landed the bird without further incident. Beyond doubt he does react instinctively and correctly in an emergency. The Air Force still talks about the time that John was visiting an Air Force jet training command to learn its methods. A USAF instructor, who was an expert in continuous aileron rolls, tried to get John sick by rolling him for about 20 minutes. Naturally he didn't succeed. What the poor USAF gent didn't know was that John is something of an expert in continuous loops. On the second hop, John asked if he could take over for a while. After about 20 continuous loops, the instructor gave up, and, I understand, left his oxygen mask less than sanitary. Instinctive reaction is essential, but it is also necessary to know the rules of the game—cold.



And those rules change, so we can't relax! Even the GCA procedures were changed—drastically—on 8 December 1959. Suppose that you're making a GCA with low fuel state. The weather is at minimums, and the runway is slippery and short. You see the landing end of the runway and unconsciously ease the throttle to land at the end of the runway. The GCA controller yells, "You're below glide path! Well below glide path! Execute missed approach procedure." If you've done your homework, you'll know that you may ignore him and land the airplane! If, however, he says, "The tower (or the visual observer) orders a missed approach procedure!" then you *must* take the wave-off. (See page 2, Encl (1) OPNAVINST 3721.1C of 8 Dec 59)

3721.1C also changed the GCA rules for ceiling and visibility limits. Until 8 December 1959, when you reached the *ceiling* limit you could continue on glide path if you had the *ground* in sight. When you reached the *visibility* limit, it was necessary that you have the *runway* in sight. This is no longer the case. 3721.1C is much more stringent. Upon reaching the *ceiling* limit you must now *level off* unless you (or your copilot if you have one) sees the *landing area.* Furthermore upon reaching the *visibility* limit you must execute a missed approach unless you have the *landing area* in sight. In effect, these new rules greatly raise the visibility required for a GCA approach. Suppose that the weather is at GCA minimums of 200 feet and ¼ mile, and that the slope of the glide path is three degrees (the steepest allowed). Barnyard trig will show that when you are 200 feet high, you will be 3821 feet from touchdown. This is much more than ½ nautical mile. If the real visibility is ¼ mile, it is clear that you cannot see the landing area, and you must level off until you can see it. You will then have to dive at an angle of almost eight degrees in order to impact in the landing area. Such a steep angle may have serious consequences. If the runway is long, you can of course simply resume a two or three degree glide after you see the landing area—and land long. If the runway is short, though, I think that it's just good judgment not to start an approach unless the visibility is at least 3821 feet. I personally hope that 3721.1C is changed back to the way it used to be. Unless this is done, though, we'd better land on long runways or else not try a GCA when the visibility is too low.

Incidentally, does *your* GCA advise you separately when you reach the ceiling and visibility minima, as required by 3721.1C? Or do they simply say, "You are now at GCA minimums"? If so, should you wave off or level off? If 3721.1C is sauce for the pilot it better be sauce also for the GCA controller!

In time of need: "Semper Paratus"

U. S. Coast Guard gets new SC-130B Hercules

Now the United States Coast Guard can speed to the rescue in new Lockheed prop-jet SC-130B HERCULES planes.

Radar-scanning a 60-degree sector ahead of them as they fly, these newest guardians of the sea lanes can detect objects at distances from 200 yards to 200 miles. They are powered by four GM Allison T56-A-7A prop-jet engines, and cruise at 320 knots. With full fuel capacity and a payload of 20,000 pounds they have a range of 3,000 nautical miles.

In addition to its crew—pilot, co-pilot, navigator, flight engineer, radio operator, two aft side-door scanners, and on-scene commander—the SC-130B HERCULES can carry tons of survival gear, medical supplies and food. After finding the distressed ship, or survivors, the SC-130B can orbit above the area for hours—serving as an "on-scene" command post to coordinate the efforts of all surface vessels and aircraft taking part in the search and rescue mission.

With these new SC-130B HERCULES planes in service, the U.S. Coast Guard's motto—Always Ready—gains a significant new dimension.

LOCKHEED | *Georgia Division*

Esprit de Marine

By Maj James C. Gasser

WHAT, PRECISELY, IS THIS NEBULOUS quality known as loyalty? Who possesses it? In the line of duty, who puts it in practice? If one is loyal, to whom is he loyal? How can a commander determine the degree to which a subordinate manifests this intangible facility?

In its obscurity, loyalty is somewhat akin to faith and love. Not a science, but an art, it is neither finite nor measurable. Consequently, such questions defy response in the few cold squares allotted in a fitness report form. This limitation does not, however, disqualify them for consideration. So, let's consider them.

Of the numerous criteria available to a commander in which to express his evaluation of the officer concerned, perhaps none is quite so universally mismanaged as that which denotes loyalty. Students of leadership throughout history have agreed wholeheartedly that loyalty is a quality which must be dispensed with equal fervor and judgment to superiors and subordinates alike.

The loyalty of a subordinate to his superior is a discernible, measurable attribute in the eyes of the superior concerned. But, on this half-truth, he may all too readily base his markings of the loyalty of the officer in question. What of the loyalty of this officer toward his subordinates?

The complexities are manifold. By a zealous display of loyalty to his commander, a subordinate may adequately cloud his shortcomings in the other direction. On the obverse of the coin, should he be overly loyal to those lesser members of the command, he may well appear lacking in loyalty to the commander, and be marked accordingly.

So much for generalities; let's deal with specifics. Although the principles are equally applicable to any rank, why not, for the sake of illustration, take the case of a major, a battalion executive officer?

With too much rank to command a company and too little to shepherd a battalion, he is literally a pledge in the fraternity of command. In the presence of his commander he informs, he briefs, and he advises. In the presence of the command, by definition, he executes the will of the commander. It matters little if this policy varies from his own advice; it matters not at all if it is inconsistent with his better judgment. That which he passes to the command has come to be known as *the word*, and this is how it must be.

In the somewhat limited perspective of a rifleman the term "Battalion Commander" is reserved for use in conjunction with only those matters which are above and beyond the reconciliation of all other worldly beings. In his eyes, the battalion commander receives his guidance from a source only a shade short of ethereal. On the other hand, the executive officer appears as a more approachable, flesh and blood human being. How then can he pass down directives which appear not only impossible, but devoid of good sense? Why does he not disown them, or at least point out that they were conceived at a higher echelon?

To deal adequately with the role of the executive officer, it is necessary to touch briefly on the accepted stature of the commander. The CO, ideally, must pursue the dual role of being always available to each member of his organization and, at the same time, avoid the familiarity and accessibility that could jeopardize his position in the unit. It is not intended that an exec divorce the commander from his command. On the contrary, he must continually guard against concealing its failures or shortcomings, even though they may reflect on his own professional ability. He handles judiciously those matters which he can easily reconcile; he promptly refers to the commander those which he cannot. For with the commander lies the responsibility, and his stance in this delicately-balanced posture depends to a high degree on the finesse, maturity, tact and, last but not least, loyalty of his executive officer.

The role of the exec is equally as tenuous. He is confronted with the problem of establishing a position of importance for himself in the battalion. His is the name that appears most frequently on those edicts which portend good or evil for the command. But whether the directive brings joy or sorrow to the recipient, he is granted neither credit nor blame for its contents. For beneath his signature, without exception, is affixed the somewhat humiliating qualification which indicates it was not truly his idea; it was "by direction."

A conscientious executive officer, summoned to the office of the commander to discuss a unit problem, confronts the CO only after he has familiarized himself with the situa-

tion. He carries a list of pertinent statistics, the salient points for and against each course of action, and a recommended solution. Regardless of the discussion which ensues, when he leaves the presence of the commander, his course is clear and uncomplicated. There are no further major decisions for him to make, no speculations on the advisability of a different course of action. He has but to carry out the decision of the the commander without reservation, without evasion, and without apology. It's just as simple as that.

If the commander has chosen to accept his recommendation, his orientation to his subordinates will be direct and convincing. After all, is he not instructing them to do what he thinks is appropriate? If the decision of the commander is in direct opposition to the exec's better judgment, it is quite a different matter. This situation demands the ultimate in loyalty. His instructions for the implementation of this action must be set forth equally as convincingly, sincerely, and uncompromisingly as though they had been conceived by the speaker.

In the military, concepts of questionable veracity, through repetition, have frequently gained widespread acceptance. Such an evaluation is that which is often heard in connection with the personalities of a commander and his executive officer. It is commonly held that if the CO is a veritable tiger, his worth can be greatly enhanced when he serves with a temperate exec. Conversely, the effectiveness of a docile, introverted commander will be bolstered by an aggressive, domineering second-in-command.

This leads to the obvious assumption that it is the responsibility of an executive officer to deflect the temperament of his commanding officer either up or down, as the case may indicate. Nothing could be further from the truth. An exec who could serve with distinction with one extreme would be equally outstanding in the same capacity with the other. His posture is constant; his demeanor unbiased by personal conviction. If he serves his commander well, none of the idiosyncrasies of his superior will be reflected in the manner in which he relays policy to the troops.

Maj Gasser has served in a variety of assignments since 1943—from artillery battery CO to NROTC instructor. In this article he has weeded out the platitudes to come up with a meaningful definition of loyalty: "It's a lot like the weather; it dictates the plan of the day. Recognize it, respect it, practice it. It's the backbone of a workable military system."

In practice, loyalty to the commander may well involve subjugation of personal conviction. It may entail a complete reversal in a field in which the exec considers himself an authority; even a renunciation of what he believes to be established practice. These are the mental capitulations, and they are the most difficult to overcome. Physically, the task is much less demanding. He has but to disseminate the policy of the commander and supervise its execution to the letter.

This, briefly, is loyalty up; what of loyalty down? The most elementary brochure dealing with the subject of leadership will point out that the avenue trod by those who manifest this quality is, at best, a two-way thoroughfare. The secret of success is not in the knowledge that one must move in both directions, but in the determination of precisely how far one may advance either way and still maintain an accident-free course on the highway of leadership.

Having touched on the necessary perspective of an executive officer regarding his CO, let us face about and speculate on the requirements of a similar nature which confront his flanks. If he would weigh these two responsibilities he would find himself confronted with the problem of evaluating rank as opposed to numbers. On one side he faces a lieutenant colonel; on the other, several company grade officers and several hundred Marines. On one side depends the quality of his fitness reports; on the other, the respect and confidence of a multitude of Marines who depend daily on his good judgment and support. Which way should he throw his weight?

His alternative is neither black nor white; it is grey. His motion is neither to nor fro; his position one of sustained stability. Vacillation is his most damning selection. An uneven balance in either direction is only slightly less destructive. What then are the ruling criteria upon which he must chart his course?

He must not clutter the desk of his already overworked CO with trivialities which might well be handled at his own echelon. Conversely, he is duty bound to bring to the attention of his superior any situation which affects the well-being of the command and which may only be alleviated by command action. He must justify in the eyes of his subordinates any and all edicts handed down by his commander. He is equally responsible for passing on to the CO a valid recommendation or suggestion presented in good faith by a subordinate.

These generalizations are somewhat too sanctimonious to be readily palatable. A typical, if fictitious, example will best serve to illustrate the true temper and judgment required in the exercise of executive loyalty.

Maj Smith, artillery battalion executive officer, has ben summoned to the office of LtCol Jones, his battalion commander, for a briefing on the proposed activities of the battalion during the remainder of the week's training. It has rained continuously for three days.

"We'll occupy firing points A2, A3, and A4 at 0700 in the morning as scheduled," LtCol Jones began over his shoulder as he indicated the assigned positions on a large chart on the office bulkhead. He returned to his chair and described at some length each facet of the forthcoming exercise while Maj Smith took notes.

"See that the battery commanders and staff are fully briefed and everything goes off on schedule," he concluded, and then glancing up, "Any questions?"

Maj Smith came right to the point. "Colonel, Delta battery occupied those same positions three weeks ago after a rain like this. They went in to their hubcaps, both the guns and the prime movers. Took half the cats from the fourth battalion to bail them out the next morning. According to the training schedule we are due to spend Thursday and Friday here in camp. I suggest that it might be better to complete that portion of the schedule while the ground is soft and get the shoot in later in the week."

LtCol Jones considered the Major's alternative for a moment before he looked up and, with a slow grin, remarked, "Well, Major, your plan sounds a lot more comfortable than mine but, as the saying goes, it's much too simple and logical to ever work. I'm afraid it's got to be tomorrow. See you in the convoy."

Back in his office Maj Smith alerted the appropriate officers to assemble for a briefing in an hour. While he waited, he involuntarily placed himself in the position of his commander and tried to shoot holes in his proposal that had been rejected. It was not easy.

The briefing was completed without incident and the assembled officers, with the exception of Alfa's battery commander, made their way back to their respective battery areas. Capt Brown remained behind and requested to speak to the Major who asked him to be seated and proceed.

"Major," he began, "I'm not the one to quarrel with what's best for the outfit, and I think you know how highly I respect the Colonel and his judgment. But this deal tomorrow just doesn't make good sense to me. I'm sure the Major is aware of what the training schedule calls for later in the week, but is the Colonel? I don't have to tell you how Delta battery made out in that same area when it rained. My battery spent all day Saturday polishing up the guns for the IG next week. This shoot will put us right back where we started and it will be all day next Saturday for the gun sections. What are the chances for a switchy-changey in the week's schedule?"

Capt Brown was one of the most progressive and diligent officers in the battalion and Maj Smith could have recited this objection almost verbatim before it was voiced. Had he not presented the same line of logic to LtCol Smith only an hour earlier?

Maj Smith might have replied, "Brown, they didn't make you a captain in this man's Marine Corps to ask silly questions, and they didn't make me a major to listen to them. Planning officers make plans; commanding officers give commands; and battery commanders follow plans and carry out commands. Now get lost, Captain, and get the tears out of your eyes in time to find your place in the convoy in the morning!"

Had the Major been cast from more malleable metal, he might have responded, "I couldn't agree with you more, Brown. But you know the spot I'm in; when the Colonel gets his mind set on something like this, we've had the course. I tried to talk

him out of it, but I guess he's getting a lot of pressure from the top. He's under the gun for bird colonel this year and I guess he's working his bolt. If you think it will do any good, I'll make the pitch over again, but I don't hold out much hope. Looks like we'll just have to give the troops the scoop and face the music!" With an apologetic grin, he concluded, "If you want something real bad, that's exactly how you'll get it."

Fortunately for the Marine Corps, these courses of action constitute exceptions rather than the rule. Our Maj Smith was neither this unreasonable nor this naive. He trod with confidence and aplomb the tightrope which hung suspended between LtCol Jones and his command. He chose to answer Capt Brown something along these lines.

"Your point is well taken, Captain, and the things you point out are certainly true. The Colonel is familiar with both the gun positions and the hazards of the soggy terrain. Illogical as it may seem, there are other considerations which make it necessary to go tomorrow. In combat you can't regulate the weather to suit the tactical situation. No more can you modify the troop requirements for fire support, rain or shine. I doubt if we will ever find a better chance to prove we can shoot, move, and communicate in the rain." He arose and terminated the conversation with, "Cheer up, Brown; maybe it will snow while we are back in camp later in the week. See you in the morning, green side out."

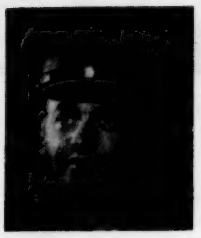
The proper approach to such a problem is not always so well defined. But if Maj Smith habitually conducts himself with the aplomb displayed in this instance, his loyalty, both up and down, is beyond reproach.

Did LtCol Jones know the manner in which his exec handled this situation? If so, he was in an ideal position to grade Maj Smith regarding his loyalty, and to insure that his judgment and tact did not go unrewarded. A continuing effort on the part of every reporting senior to discover, evaluate, and reflect these concealed qualities in a subordinate is mandatory if he would grade "loyalty" with justice.

For the most part, Marine commanders, regardless of rank, manifest not only the earnest desire, but the ability, to discern these qualities in their subordinates. For the most part, Marine commanders have served in the billets now occupied by these subordinates and therefore understand and appreciate their dual responsibility. While intended as no reflection on those commanders who manifest this capacity, this will have served its purpose if it catches the eye of one of the minority who may not.

The choice of a major to serve as an example is only coincidental. A sense of loyalty is equally as important to each Marine, officer or enlisted, who is placed in a position of authority. But for the sake of brevity, it could better be described as *Esprit de Marine,* be he junior or senior; the responsibility of an official to insure the dignity, maintain the status, and protect the position of all those whose well-being he is in a position to influence.

This, in a word, is "Loyalty," and upon it is built the Marine Corps way of doing business. USMC



BGen W. T. Fairbourn
Director, MCR

IF THE MARINE CORPS RESERVE had been mobilized 43 years ago, less than a platoon could have mustered for duty. Three years after it was authorized in 1914 to "reinforce the Marine Corps in event of war or national emergency," three officers and 33 enlisted men were *the* Reserve.

If the Marine Corps Reserve were mobilized tomorrow, nearly 200,000 would report.

The road between has been a rocky one.

There was a time, in the Roaring Twenties, when less than 2,000 Reservists were carried on the rolls. Many of these were the Class IIIs of that time, who were paid an annual $25 "bonus," in advance, to retain their status. Then there were the depression years when Reservists had to buy their own boondockers to make drills, often in civilian clothes.

This situation had to get better, which it did by the late 1930's. Recognizing the need for a stronger Reserve, Congress passed the Naval Reserve Act of 1938. This put teeth in the program by creating the Volunteer and Organized Reserve.

From November 1940—when the first Organized Reservists reported with mobilization orders—through WWII, more than 30,000 officers and 300,000 enlisted personnel were identified by *USMCR* behind their names.

It was apparent to planners that the postwar Reserve had to do more than pick up where the 1940-model had left off. A lot of spade work and solid community relations resulted in the formation of 138 Organized units by the summer of 1950. Added to this strength were the thousands of Volunteer Reservists, war veterans for the most part, who were kept on the rolls in a no-pay status. Things were looking up when the first units left for annual field training that year.

The rest is history. On July 19, 1950, the President signed the order that resulted in mobilization for Organized units and later, for the Volunteers. Eight months later, 38 per cent of the officers and 48 per cent of the enlisted men in Korea were Reservists.

The total strength of the Marine Corps Reserve, today, as it did ten years ago, numbers nearly twice that of the Regulars. Included in this figure are the Standby Reservists, who may be mobilized only through Congressional action in time of war or extreme emergency. The current training program puts the Reserve in the best shape ever. Gen David M. Shoup, Commandant of the Marine Corps, had this to say:

"Never before has our dependency upon the Reserve been so great and never before has our Reserve been more worthy of that dependency."

We agree.

BGen F. E. Leek
ComMART

As a vital part of the Marine Corps' "Force-in-Readiness," the Marine Air Reserve Training Command must keep a steady flow of young reserve officers coming into its organized squadrons. Marine Corps Reserve officers who are naval aviators now have an excellent opportunity to remain active in naval aviation upon release to inactive duty.

Vacancies now exist in several reserve squadrons throughout the Marine Air Reserve Training Command for capable young Marine Reserve pilots who are desirous of maintaining their pilot proficiency.

Mobilization potential and pilot qualification, in most cases, will dictate which officers will be selected for organized billets.

Due to promotions, change of employment, retirement and other miscellaneous reasons, vacancies are continuing to occur in organized squadrons which afford reservists the opportunity to supplement their civilian income with reserve drill pay, and at the same time, provide the aviator with the means to stay proficient in aircraft operations.

Surprisingly, many young pilots serving with FMF units are unaware of the existence of the Marine Air Reserve Training Command. Many are leaving the service with a keen desire to continue their affiliation with the Marine Corps, but because of their lack of knowledge about the Marine Air Reserve Program, they have returned to their home towns and have become indifferent to reserve participation.

The seed of information about reserve participation must be planted just prior to, or immediately after a reserve pilot leaves active duty. It must be cultivated after the reservist returns home. Too many are leaving active duty not realizing the value of their Marine Corps training to the MARTC—and to the defense of our country through active reserve participation.

Marine reservists who are nearing the end of their obligated active duty period, and who are interested in maintaining their flight status, are encouraged to write to: Comander, Marine Air Reserve Training, NAS, Glenview, Illinois, for complete information about the Marine Air Reserve Program.

THE MARINE CORPS ASSOCIATION ITS FORMATION AND OBJECTS

Reprinted on the GAZETTE's 44th Anniversary from the first issue of the Marine Corps GAZETTE, Vol. 1, Number 1, published March, 1916.

GUANTANAMO, WHERE HUNTINGTON'S BATTALION WON a base for the Atlantic Fleet in 1898, and fresh laurels for the Corps, was the birthplace of the Marine Corps Association. The first steps taken toward its organization were made by the officers of Colonel Littleton W. T. Waller's Provisional Brigade in the winter of 1911. While the organization effected was not a permanent one, owing to unavoidable circumstances, that move was the first fruit of a long-cherished idea of the Corps. The ground broken by Colonel Waller and his officers hastened the permanent organization that followed, and the lessons of the temporary organization cleared the way toward the permanency that was later won.

On the twenty-fifth day of April, 1913, the Second Provisional Brigade of U. S. Marines, under the command of Colonel Lincoln Karmany, formed the Marine Corps Association. Colonel Karmany designated Lieutenant Colonel John A. Lejeune, Captain Harold C. Snyder and Captain Davis B. Wills, Assistant Paymaster, as the Executive Committee to act in the organization.

The Executive Committee issued the statement shown in Figure 1 and sixty officers of the Brigade enrolled as members of the new organization.

The prospectus issued later stated "What we need is some means of bringing our officers closer together, as well as an organized system of education. We believe that the publication of articles prepared by officers, together with the criticisms of such articles by other officers, will offer an incentive to officers to study professional subjects with a view to preparing other articles themselves for publication and distribution to the service. In this way the knowledge and experience of each officer will be available to every other officer. In time, we will publish a semi-annual, quarterly or monthly magazine devoted entirely to service interests."

The recurrence of expeditions hampered the aim of publishing a journal, and the activities of the officers were necessarily confined to interesting officers in the Association, and laying plans for its permanency. When the appointment of Colonel George Barnett as Major General Commandant of the Corps for a term of four years was made by the President in 1914, Captain Wills, who had then succeeded Captain Snyder as Secretary, cabled or telegraphed the news of the appointment to the senior Association member at every post, station, or with any fleet. It is worthy of note that the first message of congratulation to General Barnett was received by him at Culebra from the Legation Guard at Nicaragua, and on the same day one from the Legation Guard at Peking was received at Washington.

On January 18, 1915, a ballot was sent out by the

"For the purpose of recording and publishing the history of the Marine Corps, publishing a periodical journal for the dissemination of information concerning the aims, purposes and deeds of the Corps, and the interchange of ideas for the betterment and improvement of its officers and men the undersigned hereby form an association to be known as

THE MARINE CORPS ASSOCIATION,

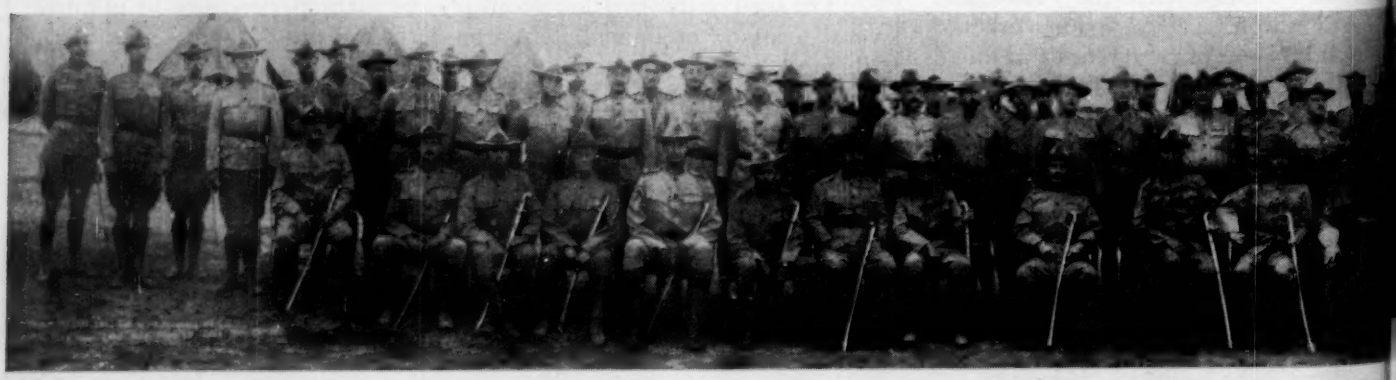
membership in which shall be open to all officers of the Corps.

All matters pertaining to the Association shall be transacted under the direction of an Executive Committee of three officers of the Marine Corps by a majority of the votes of the members of the Association. Upon the written request of ten per cent of the members of the Association addressed to the Secretary of the Association he shall cause an election to be held without delay to fill the places on the Executive Committee of those members of such committee named in the request.

Guantanamo Bay, Cuba; Witness our hands and seals this twenty-fifth day of April, one thousand nine hundred and thirteen."

(Signed) J. A. Lejeune,
Lieutenant Colonel, U. S. M. C.
H. C. Snyder,
Captain, U. S. M. C.
D. B. Wills,
Captain, A. P. M., U. S. M. C.

Figure 1



Association for the choice of a Board of Control, of which the Commandant was to be President, and two other officers, to take office for the year beginning July 1, 1915. The Board of Control for the year was announced as follows: President, Major General Barnett, Commandant; Colonel George Richards and Colonel John A. Lejeune, and the Constitution as adopted was published.

At an informal meeting of the Board of Control in the Commandant's office, in June, 1915, Captain Frank E. Evans, retired, was elected Secretary and Treasurer. It was determined at this meeting that it was the sense of the Board of Control that the annual dues, designated in the Constitution as not to exceed $10.00 per annum for active members, with dues of associate members to be later determined, should be reduced on July 1, 1916, to $5.00, further reductions to be made thereafter when the finances of the Association warranted such reduction. The principle of compensation for the Secretary and Treasurer, not to exceed $50.00 per month, was also agreed to.

At a second informal meeting in the fall of 1915 it was decided that the Association should publish a quarterly magazine to be known as The Marine Corps Gazette.

On October 15, 1915, the accounts of the Treasurer, Captain Davis B. Wills, were audited by three members of the Association: Captain James T. Bootes, Captain William Hopkins and Captain Lovick Pinkston, retired, and Captain Evans assumed his duties as Secretary and Treasurer. This audit showed a balance in bank of $1271.39 with no liabilities or unpaid accounts.

On October 27, 1915, with the sanction of the Board of Control, the Secretary mailed every officer of the Corps on the active and retired lists, a circular letter in which was embodied an authoritative statement, in detail, of the increase of the Corps recommended by the Navy Department to Congress, a resume of the National Rifle Match, in which the Marine Corps won second place, and other matters of interest.

The initial, or first meeting of the Board of Control was held in the office of the Major General Commandant, at Washington, at 3 o'clock on January 17, 1916, with a full attendance and the substance of the informal meetings was made a matter of record in the minutes of the meeting.

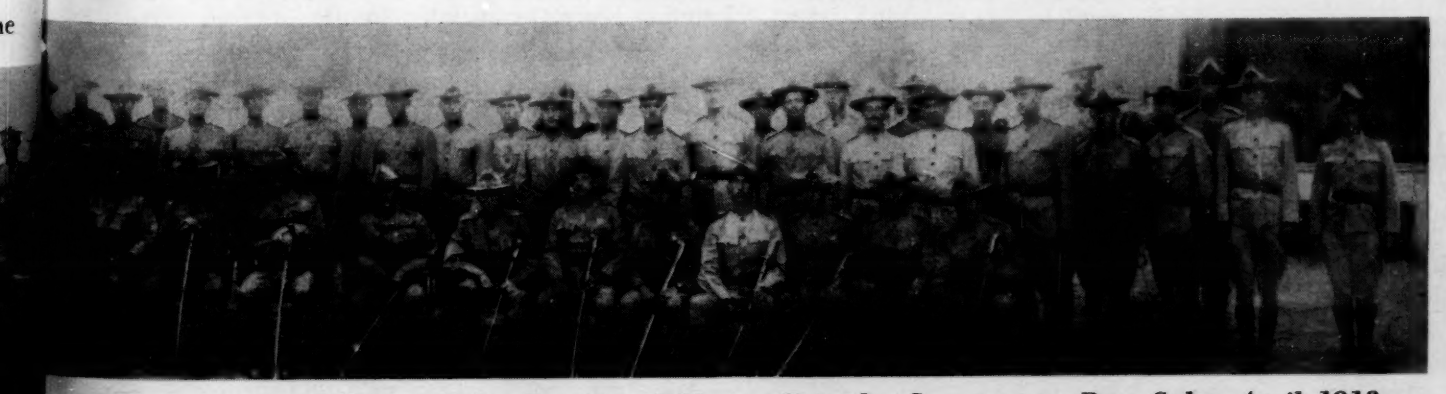
The Secretary and Treasurer submitted a statement of his accounts showing total receipts of $1354.55, expenditures of $36.86 and a balance of $1317.69 with no liabilities or unpaid accounts. Colonel Richards, as Committee of One, was appointed to audit the accounts, and reported that he had examined vouchers, verified balances, and certified to the correctness of the report.

Maj Davis B. Wills, Chief Paymaster of the Marine Corps during WWI, and one of the founders of the Marine Corps Association, passed away in Washington, D. C., 13 October 1959. He was 82 years old.

Other business transacted at the meeting related to the publication of The Marine Corps Gazette, and fixing the sum of $3.00, a part of the annual dues, to be set aside as subscription price to the Gazette. The question of admitting non-commissioned officers of the Marine Corps to associate membership, above a fixed rank, was discussed and it was decided to submit this matter to a mail vote at the time of the election of the new Board of Control. In the interim the privilege of subscription to the Gazette was extended to non-commissioned officers.

The Secretary was also empowered to embody news matter of interest, and not confidential in their nature, to members of the Association by circular letter in addition to the publication of the Gazette. The Board of Control then adjourned, subject to call.

The general form of this initial number of The Marine Corps Gazette will be followed in the succeeding issues. Officers are urged, however, to contribute ideas as to departments that should, in their opinion, be made a regular feature of the Gazette, and to submit articles or the themes for articles. With the wide variety of professional subjects suggested by defense base work, service with the fleets, expeditions, street fighting, rifle practice, aviation, artillery, mining, signalling, handling of troops, the civil functions attending occupation, and historical articles there is no dearth of material. The translation of articles from foreign authorities presents a fascinating field, and an opportunity to keep the Coprs abreast of the best thought in professional circles abroad. There are many sources for historical articles that have not been fully covered in Cullom's History of the Corps, and much has happened since its publication that should be of vital interest. The origin of the words and the air of the Corps' song, "From the Halls of Montezuma," the significance of customs of the Corps, the development of its uniform, and countless other details can be placed in permanent form through the medium of the Gazette. USMC



Officers of the Provisional Marine Brigade, Guantanamo Bay, Cuba, April 1913

The Extension School's CHALLENGE

BASIC SCHOOL LEVEL

1 A concave slope is indicated on a map by contours which are spaced so that they are

a. close all the way down.

b. wide apart all the way down.

c. close together at the top and farther apart at the bottom.

d. wide apart at the top and close together at the bottom.

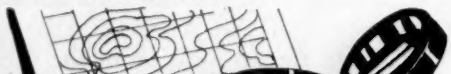
2 The magnetic declination of a map is 5°45′ West; the grid declination is 8°15′ West; the grid azimuth of a line on that map is 88°15′. What is the magnetic azimuth of that line?

a. 80°00′.

b. 85°45′.

c. 90°45′.

d. 94°00′.



3 The essential elements of information (EEI)

a. is the list of unvarying basic requirements concerning the enemy which must be known before the commencement of any operation.

b. are those items of intelligence which must be entered in the appropriate sections of the worksheet.

c. represent the results to be obtained by following the intelligence cycle in the prescribed manner.

d. represent the commander's primary intelligence requirements.

JUNIOR SCHOOL LEVEL

4 Match the following types of aerial photography with their correct definitions.

a. Oblique.
b. Sonné.
c. Dicing runs.
d. Trimetrogon.

1. An unbroken image of a strip of territory such as a beach.
2. Combines vertical and oblique photography by use of three cameras so that a photographic strip is made from horizon to horizon.
3. Either vertical or oblique photos made at high speed and low altitude.
4. Photos taken with the axis of the camera tilted from the vertical.

5 Selection of landing zones in connection with helicopter-borne operations (part of an amphibious assault) is a concern of both ground and air units. Which of the following factors are considerations in the selection of LZs? (Select those applicable.)

a. Compatibility with the landing force concept of operations and plan of attack of the helicopter-borne force.

b. Availability of helicopter approach and retirement routes.

c. Suitability for location and dispersion of logistic installations.

d. Terrain over which the force will operate *after* landing.

e. The number of LPH available and their proposed offshore operating areas.

f. The ability of the helicopter direction center (HDC) to exercise control of the helicopters from the LPH to the landing zone (s).

6 Personnel, unprotected in an area contaminated by radioactive fall-out, will receive maximum dosage during the period just after fall-out begins.

a. True.

b. False.

7 When conditions permit, a hasty river crossing offers more advantages to the attacker than does a deliberate river crossing.

a. True.

b. False.

8 In the preparation of orders for a division attack, if administrative and logistic matters are limited in scope and detail, they may be included as an annex to the OP ORDER rather than issued separately as an ADMIN ORDER.

a. True.

b. False.

SENIOR SCHOOL LEVEL

9 The over-all aerial photographic plan for an amphibious operation is prepared by the

a. Amphibious Task Force Commander.

b. Landing Force Commander.

c. Theater Commander.

d. Amphibious Task Force Commander and the Landing Force Commander, jointly.

10 What tactical conditions usually exist which influence the decision to employ TAOR's?

(Answers on page 68)

WHY NOT

Keep up to date?—You get the latest Marine Corps Schools texts when you are enrolled in *The Extension Course Program.*

THE SALTY SKIPPER SAYS

The Leader Comes First In Leadership

THE OTHER NIGHT JANE AND I HAD THE COMPANY officers and their brides over for a little libation and small chow. Naturally, before long the men were over in one corner talking Marine Corps shop. The gals were left to solve the problems of commissary, MX, fashions and kiddies.

Johnny Bold, who has the 3rd Platoon, started us off with:

"Well, gents, what about the new Old Man?"

It's always open season for dissecting your Commanding Officer—if he's not there. We fell to on the Bn CO. Finally, big Joe Smith, the old mustang, came out with a constructive remark.

"You know, after all, he *looks* the part. He checked the 1st Platoon yesterday at the 1,000" MG range and he looked sharp. His uniform was a perfect fit, his shoes blinded you, and his whole manner was what I would expect. To me he looked the way a lieutenant colonel in the Marine Corps should look."

"What did he ask about your training Joe?" Red Salmon piped up, eagerly. He has the 2d Platoon and they're heading for the range Monday.

"He seemed pleased with the training, but he asked some excellent questions: about my men and how support was from battalion. And he wanted to know if the S-3 ever visited us out in the field. He seemed to be trying to get the feel of his new outfit."

"That's a smart policy to remember," I put in. "A good leader when first in a new command doesn't start changing everything. He looks around, watches how the outfit operates and makes changes only when necessary. If you only make necessary changes you'll have a sharper outfit. Too many officers make changes just for the sake of change."

"You're sure right, Salty," busted in Red. "The best Battalion CO I ever had was out at Basic School some years ago. This officer would drop informally into your office and put you fully at ease as he sat down. Then he'd ask you for your ideas on a certain problem. After a short discussion, you usually found yourself agreeing with a slightly different approach—far better than yours—which the Old Man had come forth with during the chat. Before leaving he would put his hand on your shoulder and say, 'Red, that was a fine idea. Let's try it the way we discussed it.' You know, I soon realized that here was an *ichi-ban* leader. He could get you to do something his way because you *wanted* to do it that way. In other words, we were a part of the same team."

I then turned to Bill Turner, our young lieutenant, just graduated from Basic School. He hadn't opened his mouth. "What's your idea of a true leader, Bill?"

"I think the two important qualities are desire and integrity. You must want to know and do your job and to act the part of a leader. In school I noticed some agents just wouldn't take the initiative. They always waited to be told. I believe if you have a problem, it's better to do something than nothing."

"I'm with you," growled Joe Smith. "Wasn't that a top-notch article about Gen Smedley Butler? What a character! What a desire and what integrity he possessed! I gathered he believed in his Marine Corps enough to sacrifice his own career. Don't forget to add self-sacrifice to desire and integrity."

Right here, someone brought up the next day's inspection and the need for sack time. That broke up our talk.

When my dish-drying detail ended, I took Skoshi—our chow hound—for some fresh air. While he dragged me around, I started to ask myself some questions about "yours truly" as a Marine leader.

Do I *act* the part everyday?

Do I always *look* the part?

Do I *know* my job?

Do I exemplify those qualities of leadership I respect so much in outstanding leaders?

What can I do tomorrow to be a better leader?

In no time I concluded there was a lot I could—and should—do immediately to improve. After all, it's not your size, build, background or education that makes you a good leader. It's *desire, integrity, respect for man* and *self-sacrifice.*

Have you analyzed yourself lately? Can you be a better leader? Think it over.

The *Leader* comes first in *Leadership.* USMC

TRAINING THE FORCE IN READINESS

SUPPORT BY FIRE PART IX

By LtCol T. N. Greene

"We must maintain all necessary types of mobile forces to deal with local conflicts, should there be need. This means further improvement in equipment, mobility, tactics, and firepower."

—The President of the United States, State of the Union Message, 9 Jan 1958

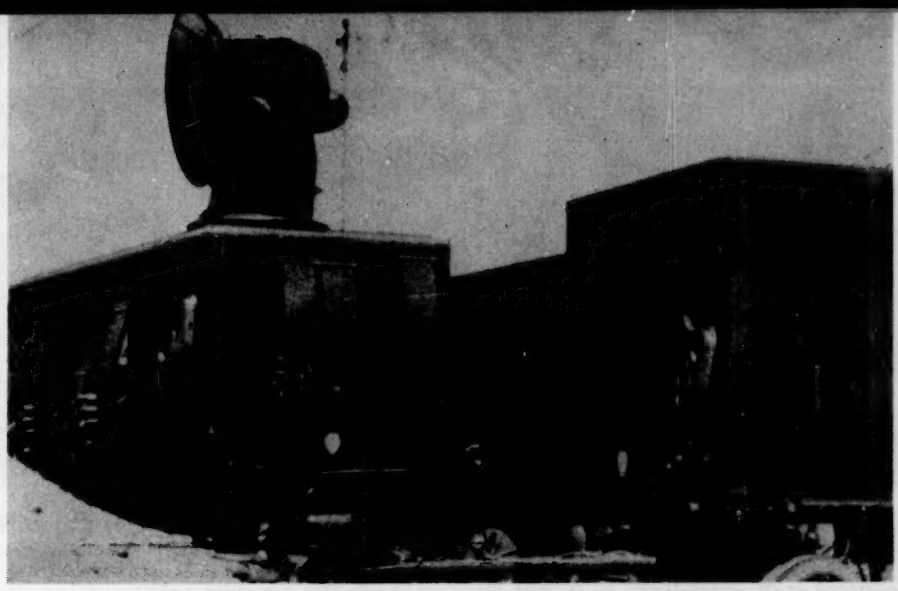
Only the Navy-Marine Corps air-ground team meets the specifications for a global force-in-readiness. Independent of bases, "fly-over rights," and diplomatic wranglings, this team can apply the precise amount of force required — from watchful waiting in international waters to a full-scale assault. Its highly selective arsenal ranges from the fixed bayonet of mob control to the megaton weapon of all-out war. Characterized by amphibious and helicopter mobility, the air-ground team can direct its fire and maneuver against a guerrilla band or a missile base. Such versatility is created in theory by careful organization, equipping, and development of tactics. The actual ability to accomplish manifold missions so vital to survival of the free world must rest on the primary concern of each professional Marine: the training of troops.

The capability of a force-in-readiness depends on the achievement of a state of real readiness through realistic training. This series of articles has been addressed to two primary theses. First, is the basic importance of firepower by all supporting arms—the weighting factor compensates for the sacrifices imposed by helicopter mobility. Second, is the complexity of fire support using several complementary arms—a complexity which requires a major effort to insure full integration of all parts of the supporting arms-infantry team. Examination of tables of organization will emphasize the point. The artillery regiment of a Marine division can no longer by itself hold a realistic training exercise. Its communications depend on the division radio relay system. Its command post functioning is divided and closely linked in each case with the division staff. The realism of the exercise will be affected by the availability of air, naval gunfire, and Force artillery. Further, the functioning of the artillery regiment is no longer primarily between FDC and FDC; it is now between FSCC/FDC and FSCC/FDC, with the emphasis on the FSCC aspects. To only a slightly lesser degree, the same considerations are true for both the Close Support and Intermediate Support battalions of the artillery regiment. Realistic training must include the use of battalion and/or battery groupments of mixed calibers as well as the integration of infantry and artillery command groups and communications. Even at battery level a realistic tactical exercise will be difficult without infantry representation, although non-tactical exercises emphasizing service of the piece, conduct of fire, reconnaissance, selection and occupation of position will continue as a unilateral training requirement.

There should be no argument with the proposition that the one best way to achieve a realistic force-in-readiness is a maximum of realistic training, coupled with maximum personnel stability. We are in the process of revising our personnel procedures to attain such stability. It is time that we took a new look at our concepts of training. This can best be approached by examining in turn requirements of modern doctrine for supporting arms individual, unit, and combined arms training.

One recurrent question arises as the need for closer integration of supporting arms and the supported infantry becomes more apparent. It is: "Why not reorganize the T/O to include one artillery battalion in each infantry regiment?" This is a

valid question, because this is the way the Marine division must fight. Purists may insist that artillery will be in direct support rather than being attached. On the modern battlefield, this is a distinction without a difference. Either way the artillery staff will work as part of the RLT staff, the command posts and communications will be integrated, and the RLT commander must coordinate local security, movement, logistics, atomic warning, and many other details for his entire zone of action or TAOR. On the other hand, the artillery regimental commander and staff will continue to deal with the artillery battalion commander and his staff. They are division staff officers, just as much as G3, and have the same right to call their opposite numbers as G3 has to call on S3. The separate organization of an artillery regiment in garrison is not intended to dictate the combat task organization; it is required, simply, to accomplish effective training. The artillery regiment is actually the division artillery staff. The first aspect of supporting arms training that recommends a separate organization in garrison is the pyramiding requirement for specialized individual training. The artillery regiment includes some of these sample MOS fields: many communicators, numerous motor transport (with up to 40 per cent of the drivers holding a separate primary MOS), fire direction, artillery surveyors, radar operators and repairmen, meteorologists, ordnance technicians, air observers, forward observers, naval gunfire spotters, and atomic analysis. This pattern of extreme individual specialization has two salient effects. First, most enlisted artillerymen must be trained in two or more MOS fields, as well as the basic infantry tactics and techniques needed to be Marines. Second, all officers must be familiar with all parts of the picture, able to train and to supervise. In the one specialized field of artillery fire direction alone, several months training is required to attain minimum proficiency, yet there are in one artillery regiment 42 FDCs requiring such skills. The urgent necessity of using the best-qualified personnel to conduct specialist schools and supervise technical training is readily apparent.

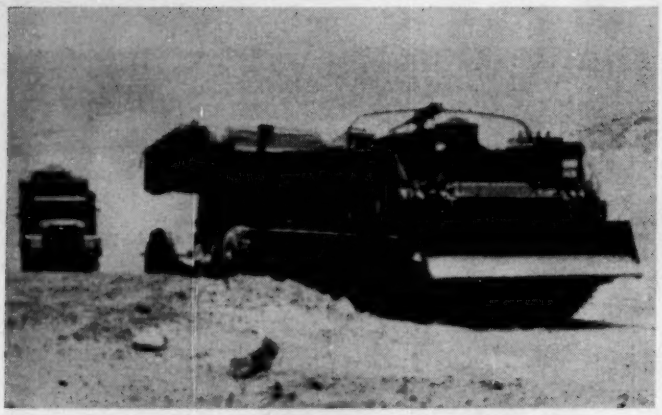


AN/MSG-3 Guided Missile Fire Control System

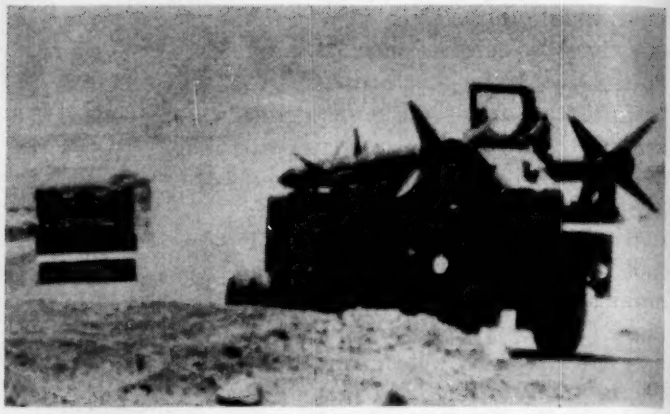
Progressing to unit training requirements, the supporting arms must train by live firing of high explosive projectiles. This requires a heavy back-up of safety officers, range officers, range guards, and extra communications for each firing unit. These factors recommend a centralized organization. So, too, do the heavy requirements for maintenance of special equipment: communications, motor transport, ordnance, radars, and fire control instruments. The most cogent argument for a centralized training organization, however, lies in the requirement for development of standard methods, techniques, and SOP. From before WWII through Korea specific written doctrine covered the entire field of supporting arms employment, fire direction, and coordination. This series has attempted to point out many critical areas in which previous doctrine no longer meets the requirements of the modern battlefield. These include fire direction techniques, artillery survey for both target acquisition and position location, fire planning, target information, countermortar/counterbattery, restrictive fire plans, coordination and control measures, and, above all, atomic weapons employment techniques. All of these areas require continuous aggressive development of a firm and workable doctrine which will ensure real support by fire of the force-in-readiness.

On the other hand, the existence of major unsolved supporting arms technical problems cannot and must not be an excuse for the technicians to retire to their ivory tower to contemplate their navels, while they seek enlightenment. Such enlightenment may be partially found by theory and the staff study. It must be tested, proved, and improved, however, in the training areas, by training exercises. We must first of all make major improvements in achieving hard-nosed realism through the normal training vehicles of the CPX and the FEX. There is only one way to do this and that is to place greater emphasis on planning and control of such exercises. Situations, times, and exercise "inputs" of messages from canned scripts must stress realism for all members of the team. The Maneuver Director must be a director of both fire and maneuver. The administrative overhead of supporting arms umpires is much heavier than that to control infantry units, but we must have them. The infantryman is not given credit for seizing an objective until he has gone through the proper tactical steps to actually seize that objective. We cannot allow FOs, SFCP, or FACs to "short-cut" their problems by simulating a call for fire support and then giving them credit for utter destruction. If the call for fire is sent to a firing unit, we must check along the way to ensure that proper steps are taken to achieve survey or registration, to employ meteorological data, and to check the increasingly important element of logistics.

We must obviously exert our utmost effort to achieve maximum realism in atomic play. An exercise



High-speed tractor tows Terrier launcher



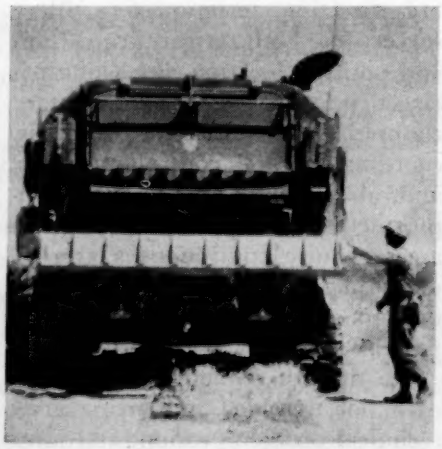
Missile transporter carries twin Terriers

control staff must have highly-qualified technicians who can provide proper exercise for aviation units, for radars, and for high-level staffs as well as platoons. Maximum effort must be placed on providing a real maneuver enemy, target, or object when possible; when the real thing cannot be provided, great imagination must be used in achieving realistic simulation. In particular, the exercise script must be flexible enough to respond to the actions taken by the exercised units and staffs. Nothing inhibits initiative and interest more than such an unrealistic exercise device as a fictitious Aggressor force which cannot be seen by actual air observers on station and searching the area.

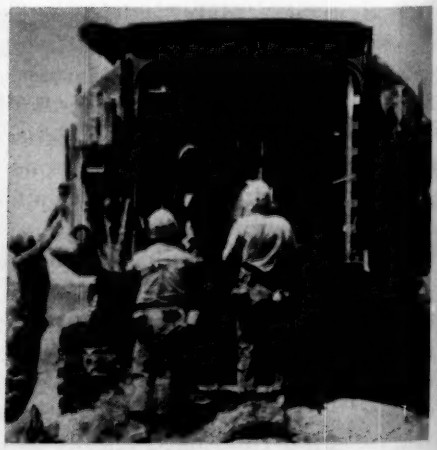
As a matter of basic planning of CPX and FEX, special attention must be given to the unique nature of the Navy-Marine Corps air-ground team. Early planning must be accomplished to allow realistic and mutually beneficial participation of both aviation and ground elements in exercises. An integrated maneuver headquarters must be formed early to include both components. Exercise planning must be framed to accommodate the exercise of air staffs. Further emphasis must also go to forming combined Navy-Marine exercise headquarters. We must recognize the fact that our fire support for the critical first several days of an operation will be provided by the Navy through Navy staffs and facilities, and that important Marine command posts will operate afloat. For this reason, preparations for a PHIBLEX should include plans for an afloat CPX. When time does not permit such a device, maximum emphasis should be placed on making the exercise rehearsal into a full-scale simulation of D-Day activities, not just a walk-through of ship-to-shore control procedures.

In an amphibious exercise undoubtedly the most intricate, precisely-timed, and challenging command and staff procedure is the last-minute preparation of the objective

area and timing of the supporting fires relative to the ship-to-shore movement. A second critical aspect involves the supporting arms coordination functioning when RLT and atomic artillery are ashore, but control of all supporting arms remains afloat. There is only one way to achieve realism and a "sense of urgency" in working out these details and that is by live firing. Whenever possible, we should combine the amphibious rehearsal with a live FIREX, employing air, naval gunfire, simulated atomics, and ultimately the actual landing of artillery. The rehearsal/FIREX schedule should duplicate the projected schedule of events from approximately H-4 hours to H+12 hours as closely as possible and must be carefully umpired. Such an exercise was conducted at San Clemente Island (PHIBLEX 58I) with great benefit to both Navy and Marine staffs, and particularly to improved coordination between those staffs. We must get away from the idea of using the FIREX as a simple demonstration of firepower for the amusement and edification of embarked troops. We cannot afford to let the rehearsal of an amphibious task force degenerate into an exercise in the relatively simple art of controlling boat waves. Expanding these activities piles up



M-53 self-propelled gun



Loading 155mm ammo

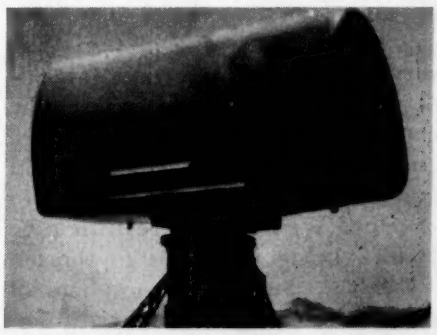
M-30, right, prepares to load Terrier missiles

Terriers in firing position

the already massive planning requirements, but it pays off. Sweat is still cheaper than blood.

However, even if we improve our traditional CPX and FEX and emphasize the critical employment of supporting arms in amphibious exercises, the training problem of supporting arms for the force-in-readiness will not be solved. The ultimate aim of all the technicalities of supporting arms is rounds on target, and their training can be assessed in no other way. As indicated previously it is now impracticable to hold realistic firing exercises with the artillery regiment or battalion alone. Likewise, it is nearly impossible and generally undesirable to conduct basic firing exercises with infantry deployed in the impact area. We need a new training vehicle which will bring together all the supporting arms and representatives of the supported infantry. A series of such exercises was conducted by the 1st MarDiv in the spring and summer of 1956. Planned by then Col W. T. Fairbourn, CO of the 11th Marines, and then MajGen M. B. Twining, CG, 1stMarDiv, these FIREXes paved the way for development of concepts, procedures, and techniques of fire support which were of immense value in testing the reorganized divisions shortly afterward.

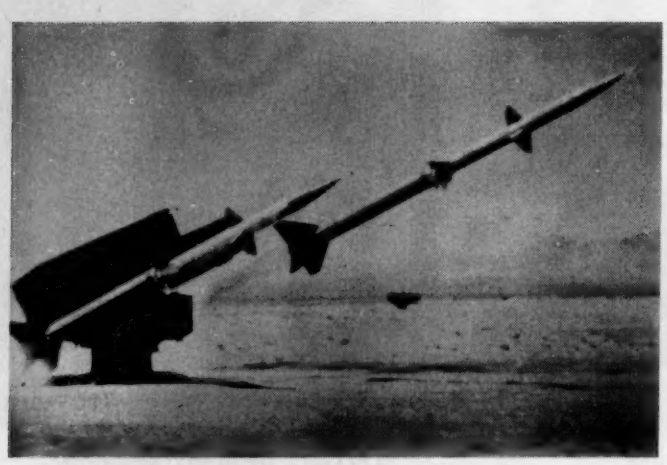
The first exercise was held at 29 Palms in April, 1956, and included



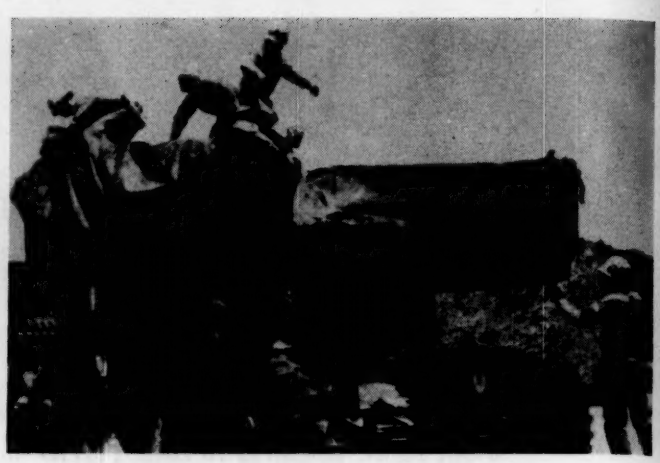
all supporting arms personnel of the division — artillery, naval gunfire, and air — reinforced by all Force artillery at 29 Palms and major participation by the 3d Marine Air Wing. Live artillery represented naval gunfire. Infantry battalion, regimental, and division staffs were represented on a CPX basis. Here for the first time, live fire support was actually executed by the supporting arms team of a division-wing air-ground team operating with full unit separation. As a result of this exercise, a series of RLT FIREXes was then conducted at Camp Pendleton. Again infantry staffs participated on a CPX basis; division and Force artillery participated in toto. The DASC controlled live air; naval gunfire was represented by artillery. These FIREXes included a maneuver phase, emphasizing target acquisition and processing, and a firing phase limited by the available impact area, but which included live air. Again full unit separation was employed, and both infantry and supporting arms personnel learned at first hand the problems of the dispersed formation. It is considered that regular scheduling and conduct of live firing exercises of this type is essential to training the force-in-readiness. Only by live firing can we truly "wring out" the air-ground team, and its naval gunfire component, evaluating our progress by the

45-ton M-53 in FIREX at 29 Palms

Night fire lights up desert sky



Live firing "wrings out" air-ground team.



"Rapid and efficient handling . . ."

one true measure of rounds on target.

We must have a "sense of urgency" and this can be accomplished in no better way than by live firing. Here logistics can be real. If the rounds don't arrive, you cannot fire. Here fire direction and survey become important. Only missing a real combat target can be more embarrassing to supporting arms commanders than missing a maneuver target. Only here can proper emphasis be placed throughout the communications system to speed up delivery of fires from a stumbling 5-10 minutes to the proper standard of one minute. In this area, Army artillery has had and used for years standardized battery and battalion tests which measure the proficiency of units and commanders by live firing. Such tests are no longer fully appropriate to the reorganized Marine supporting arms team, but from a series of exercises as suggested standardized tests for all supporting arms could be readily developed.

In the absence of established doctrine, we must develop new standards which will tell us where and how we fall short of true readiness. There are, for example, no experience factors to tell us how large an area the massed fires of three dispersed batteries should cover. We should begin to record and determine a tactical CEP for all supporting arms, an experience figure we can use for each type of fire. The surveillance and recording of fall of shot required would in itself be excellent training for the flash bases and other forms of target acquisition and surveillance we urgently need to develop. We must find realistic time factors, being impatient to shorten all delays. Such an atmosphere of competition, emphasized by regularly scheduled, formalized testing would stimulate both a sense of urgency and healthful competition. In firing, the small unit leadership of supporting arms NCOs comprises rapid and efficient handling or supervision of communication, fire direction, radar, or survey equipment. The section chief and gunnery sergeant supervise the exactness and speed of leveling bubbles, the care and handling of ammunition to insure accuracy, and the proper attitudes and methods of service of the piece. No one in the chain, ammunition handler or regimental commander, can much longer hide behind the excuse that this is a new organization with problems we have not yet solved. We draw pay to solve problems, not to discover them.

The mission of the modern Navy-Marine Corps air-ground team is simply to prove itself as the nation's primary force-in-readiness. There is only one way to do this: a maximum of continuous, realistic training. Only from such realistic training, employing all members of the team, can we hope to learn the tactics and techniques which will fully implement the modern doctrine. We cannot say whether the next call for a force-in-readiness will require forbearance or force, bayonets, bullets, or the big bomb. We do know that the nervous and uncertain state of the world requires maximum readiness through training to provide withering support by fire wherever and whenever the scheme of maneuver and national policy require.

USMC

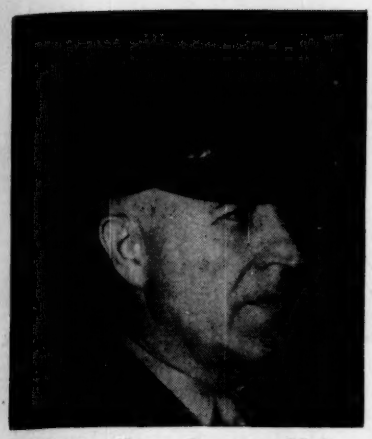
★ ★ ★ ★

Post Mortem

THREE MARINE FLYERS on the Ginza in Tokyo repeatedly ignored the insults of a drunken British sailor who followed them from bar to bar roaring. "Yankees, go home." An increasing harangue vilifying Americans in general and US Marines in particular went unheeded. Finally the Marines offered their tormentor a drink. He agreed and several drinks later he quietly passed out. The tolerant Leathernecks lugged him back to his ship but stopped off first at a small shop on the waterfront and gave a brisk order. The next morning, as he faced himself in the mirror to shave, the tar recoiled in horror. Across his chest in glorious tattoo flew the Stars and Stripes. And beneath, in Old English lettering, was the legend:

God Bless America.

United Aircraft Bee-Hive



Marine Corps Sergeant Major Francis D. Rauber

The Sergeant Major's Mail

FROM CONVERSATIONS WITH ENLISTED PERSONNEL throughout the Marine Corps, and even from the comments of some officers, I find that there are still people who think enlisted assignments are made by dart, ouija board, or crystal ball. It is surprising to observe the number of people who envisage the "Commandant of the Marine Corps," in his role of "Detail Officer," as an impersonal, machine-like figure, without knowledge of, or interest in, the problems of the individual. Many Marines have the vague idea that any letter which is sent to Washington finally reaches a desk, supervised by a sergeant or lieutenant, on which rests a list of iron-clad policies (based on no sound foundation), and two rubber stamps, "Approved" and "Disapproved."

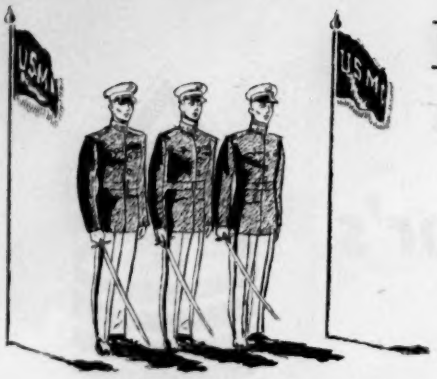
Upon receiving the letter, this faceless figure at the desk is supposed to do one of two things. He either compares the letter, regardless of its contents, to one of his list of "Policies" and then stamps it "Disapproved" or "Approved." Or, on the other hand, depending on how he feels, he may not even compare it with anything—he may read it to see what is desired, and then order the opposite.

Nothing could be farther from the truth than the types of misconception I have mentioned above. On the contrary, it is the firm policy of the Commandant that we have a very "personal approach to personnel problems." This idea is faithfully followed by the Director of Personnel, the Head, Assignment and Classification Branch, the Heads of Officer and Enlisted Detail Sections and by the monitors. When a letter requesting a particular assignment or personnel consideration reaches Headquarters, it is considered and thoroughly studied by an assistant monitor (enlisted), a monitor (officer not below the rank of captain), usually by a control unit officer (major), and frequently by the section head (lieutenant colonel or colonel). In every case involving something more than routine, the request receives the personal attention of the section head, and in many instances may be considered by the Branch Head, the Director of Personnel, the Chief of Staff of the Marine Corps, or the Commandant, depending upon the seriousness of the problem.

Of course, there must be, and naturally are, policies governing these decisions. In my last column I mentioned one of these, i.e., "Permanent change of station orders can be directed only to satisfy a valid military requirement." There are many others, but all are based upon one cardinal principle—"The needs of the service must necessarily over-ride all other considerations." All of these policies have a sound basis in reason, and are used as firm guides. However, every individual request is weighed, and since no two cases are exactly alike, the final decisions are likely to differ also.

As to the people who make these decisions—they are not faceless machines. They are officers who have commanded companies, squadrons, battalions, regiments or air groups. They know what your problems are because they have been there. They have helped you or your predecessors write one of the same types of letter to their predecessors in Headquarters. They know, understand, and have a strong desire to help solve your problems, because they recognize the responsibility of the commander to his men, and the Marine Corps to its own. Their solutions may not be what you wanted, but they are the honest best that can be reached, giving primary consideration to the "Needs of the Service," and every other possible consideration to *your* needs.

One final word on this subject: Just as the officers and men in Headquarters were once, and will be again, in a field command, with certain responsibilities to the individuals under their control, so it is necessary for all First Sergeants, Sergeants Major and any others in a position to be of assistance, to assume that responsibility wherever they may be. No one in a position to help should brush off a request for assistance because it is a "bother" or "unimportant." To every Marine, his problems are important. To that extent, they are also important to the Marine Corps. USMC



passing in review

Book Reviews of professional interest.

THE CLOCK WITH FOUR HANDS

JAMES LEASOR. 299 pages, photographs, bibliography, index. Reynal & Company, N.Y.
Bookshop Code #MM-4 $5.00

James Leasor, the author of that tremendously vital account of the siege of Delhi, *The Red Fort,* here lends his talents to a less exciting, higher-level account of war. *The Clock With Four Hands* is based on the experiences of Gen Sir Leslie Hollis, KCB, KBE—latterly, Commandant General, Royal Marines. The title derives from a special clock, showing Washington and London time, located in Churchill's underground command post in London—the "Hole in the Ground." And so much for that.

In 1936 Hollis, then a major serving in London, was assigned duties as secretary of a sub-committee of the Chiefs of Staff Committee. From this beginning he progressed to the job of assistant secretary of the War Cabinet and the Chiefs of Staff Committee. In this capacity he attended some six thousand meetings through the war years. Leasor's book is an account of WWII from that post of observation.

Such a book cannot help being interesting, the level of interest being directly proportional to the candidness of the narrator. Hollis is quite candid. He makes it quite clear that Lord Beaverbrook, for instance, was one of the thornier personalities of the war. Even so, thinks Sir Leslie, Beaverbrook was the titan whose energies, directed toward aircraft production, saved the nation and turned the course of history. Alanbrooke, he feels, was not quite so omniscient as *The Turn of the Tide* makes him. Montgomery, says Hollis, claims more for himself than the record justifies. Particularly, he accuses, Monty was less than frank in his account of the circumstances surrounding the debate over the thrust against Berlin.

In the large sense, this book offers a new approach—that of the informed and involved professional who was still, in a sense, an observer and recorder rather than a participant. Perhaps this role is what permits Hollis to deride, by inference, the detailed diaries kept by such personages as Alanbrooke and Kennedy. Hollis, gifted apparently with total recall, feels no inhibition in describing closely observed minutiae.

The exercise of this recall (assisted we know not how) makes an interesting book. Churchill, Roosevelt and their troops of helpers are shown in conference and at work. The debate and decisions over strategy are presented and discussed in great detail. The retrospective correctness of the British views over Mediterranean strategy, the timing of the second front, and Stalin's wickedness, are not neglected—but then, *no* British writer has failed us on these subjects.

Adm Ernest King USN should find a secure place in history if for no other reason than the consistent view of him as an anti-British, anti-Royal Navy ogre who insisted on running his own private war in the Pacific. Hollis participates, but with one interesting new variation.

The US Marines are referred to in one place as King's "huge private army" and in another as the "huge US Marine Corps." It must be remembered that Hollis is a Royal Marine and must often have pondered the way his American opposites went about making their rendezvous with history. Inferentially, this is made clearer when Hollis describes the small and impotent Combined Operations group (at one time, two officers) which functioned in England from 1932 to 1939. The final piece in this interesting mosaic falls into place when one reads of Gen Marshall's naive delight in the British amphibious set-up in 1942, Patton's professed unwillingness even to talk to admirals, and what Hollis thought Adm Hewitt's mission was. It is sad, in a way, that senior American officers should have been so unsophisticated. It is also sad that Sir Leslie found it desirable to hold up as an example of progress in amphibious thought a pitifully small office, inhibited on one hand by the parsimony of the Admiralty and on the other by the ghost of Gallipoli.

"A prophet is not without honor, save in his own country, and in his own house," says the first Gospel. This should be our lesson from this book. It could never be discerned, from this work or many like it, that the US Marine Corps had worked with singleminded diligence and amazing effect to produce a detailed, realistic amphibious doctrine and to test it thoroughly, before 1939. In times of doubt and stress, it is good for Marines to remember their heritage. It may be, after all, that our publicity is not as good as our product.

Reviewed by Col A. M. Fraser

. . . A candid account of WWII leaders and strategy from a British viewpoint.

CARTWHEEL: The Reduction of Rabaul

JOHN MILLER, JR. 418 pages, photographs, maps, charts, tables, bibliographical notes, and index. Office of the Chief of Military History, Department of the Army, Washington, D.C. $5.25

Bookshop Code #MM41

This book is the 42d volume published in the series *United States Army in World War II,* and the 8th volume in the subseries, *The War in the Pacific.* The author is a Marine veteran of the Bougainville operation. He also wrote the excellent volume *Guadalcanal: The First Offensive.* As with all the scholarly volumes in this series, *Cartwheel* is indispensable for the student of WWII. It is a must for the veteran who wants to know how his individual and myopic little corner of jungle fitted into the big picture.

Reviewed by Maj Verle E. Ludwig

SHOOT TO KILL

BRIGADIER R. C. H. MIERS, D.S.O. and Bar, O.B.E. 216 pages, photographs and map. Faber and Faber, London. $3.00

Shoot to Kill takes its compelling name from the most important lesson learned in the 11-year-old jungle war still being fought by the British and Malayan forces in armed combat with the Communist terrorists, the CT's, of Malaya.

The author gives a most readable account for both junior and senior alike. The painstaking planning, the waiting, the swift pounce at precisely the right moment—all these are here. Here, too, are the times of frustration and tedium, the times when nothing went right. The dominant note throughout is one of excitement—of exhilaration almost—at the superb doing of a difficult and most dangerous job.

Reviewed by Maj B. F. Meyers

THE WEAPON ON THE WALL

MURRAY DYER. 269 pages. The Johns Hopkins Press, Baltimore. $6.00

Bookshop Code #J-5

The *weapon* which Murray Dyer wants removed from its present misused, even unused, status *on the wall* is psychological warfare.

The author claims psychological warfare and information should answer directly to the President; not either the State or Defense Department. The weakness here is obvious: political relations with other countries quite naturally fall to the State Department. Assuredly those relations must include this area.

A major fallacy, however, is the contention that psychological warfare should not be under the control of a military commander in time of war. Here we take violent exception! The theater commander *must* have absolute control over all activities which are conducted within his theater of operations; he must know how, why, when, where, and who. His must be the final voice. Admittedly, this voice must conform with national objectives; but the Central Intelligence Agency, US Information Agency, and any others which desire to operate within his sphere of influence must do so only with his permission and at his direction.

Despite shortcomings caused by the author's rightful desire to upgrade "psywar," this book gives potential field commanders an insight into this important weapon.

Reviewed by LtCol T. M. Coggins

Your Standard Brandsman maps profits
He can scout you tidy profits on gelatin desserts, *if* you serve Royal in your open mess or exchange restaurant.
Proof? The "schnozzola" test! Pour boiling water over Royal Strawberry Gelatin. Royal's fragrance will remind you of just-picked berries. Your present gelatin (unless it's Royal) couldn't pass the same test.
Royal's versatile, too—makes countless variations of desserts, salads, pies. Order Royal, *soon.*
Royal
GELATIN DESSERTS

The Gazette Bookshop
ROOM FOR THOUGHT

NEW AND CURRENT

NOTE: 15% discount for Members!

MM-1 THE TRUMAN-MACARTHUR CONTROVERSY AND THE KOREAN WAR—*Spanier.* With the perspective of eight years the Truman MacArthur dispute stands revealed as the most serious constitutional crisis of the century. Here is the complete inside story of this epic struggle. $6.50 ($5.25)

MM-2 THE TANK COMMANDER'S GUIDE—Written and compiled by the staff of the U.S. Army Human Research Unit this 2d edition has been expanded to include all the latest equipment including the M48A2 tank and all other pertinent items. $2.95 ($2.50)

MM-3 UNIFORMED SERVICES ALMANAC—The new 1960 edition. A personal book of military benefits. 144 pages of current and detailed information on career subjects. $1.00 ($.85)

MM-4 THE CLOCK WITH FOUR HANDS—*Leasor.* Based on the experiences of Gen Sir Leslie Hollis, Commandant of the Royal Marines during WWII. A candid account of leaders and strategy from the British viewpoint. $5.00 ($4.25)

MM-5 LINCOLN AND THE TOOLS OF WAR—*Bruce.* This book should interest ordnance-minded Marines and Civil War students. It gives a summary of R&D 100 years ago. $5.00 ($4.25)

MM-6 VICTORY AT SEA—*Salomon & Hanser.* Picture and text story confirming the prophesies of Alfred Thayer Mahan, the high priest of sea power. A taut, thumbnail history of WWII. $5.95 ($5.05)

MM-7 THE JOINT AND COMBINED STAFF OFFICER'S MANUAL—*Nicholas, Pickett & Spears.* A good guide for those who have never attended a service school or served in a staff assignment. $4.50 ($3.82)

MM-8 THE PANTHER'S FEAST—*Asprey.* The carefully documented story of Alfred Redl, an Austro-Hungarian General Staff Officer who sold out to the Russians prior to WWI. $5.00 ($4.25)

1959 BOUND VOLUMES

All 12 1959 issues of the Marine Corps Gazette sturdily bound in green buckram. Add $1.00 for your name stamped in gold.

$7.00 ($5.95)

GAZETTE
Code
BV-1

ALL ABOUT

ORDERS—No need to print titles. Order by Bookshop Code number shown left of book title.
SERVICES—The Gazette Bookshop will fill your order for any book in print (Encyclopedia excepted). 15% discount from list price for members. Members may use postcard order blank insert. Others must enclose payment with order. Service will be expedited if you can include publisher's name.
CREDIT — Only Association Members are accorded the convenience of purchasing merchandise on credit.
MAILING — The Association will pay postage on members' purchases. Non-members will be billed for the postage on shipments to foreign addresses only.
PRICES—Non-members pay list price. Members pay price listed in parentheses.
PAYMENT — Please make checks and money orders payable to the Marine Corps Association.

MM- 9 GUIDEBOOK FOR MARINES—$1.50 ($1.27)

MM-10 MARINE CORPS WIFE—*Shea.* $3.50 ($2.95)

MM-11 THE UNCERTAIN TRUMPET—*Taylor.* $4.00 ($3.40)

BETTER HOMES AND GARDENS SERIES

MM-12 Decorating Book—$5.95 ($5.05)
MM-13 Baby Book—$3.95 ($3.35)
MM-14 House Plants—$2.95 ($2.50)
MM-15 Meat Cook Book—$2.95 ($2.50)
MM-16 Salad Book—$2.95 ($2.50)
MM-17 New Cookbook—$3.95 ($3.36)

MM-18 ADVISE AND CONSENT — *Drury.* $5.75 ($4.90)

MM-19 HAWAII—*Michener.* $6.95 ($5.90)

MM-20 THE MANSION — *Faulkner.* $4.75 ($4.04)

MM-21 THE UGLY AMERICAN—*Lederer & Burdick.* $3.95 ($3.36)

MM-22 THE BARREN BEACHES OF HELL—*Cochrell.* $4.95 ($4.25)

MM-23 HISTORY OF MARINES IN WWII (Vol. I) $4.25 ($3.62)

MM-24 THE ART OF WAR—*Jomini.* $2.50 ($2.13)

MM-25 EAST AFRICAN CAMPAIGNS—*Von Lettow-Vorbeck.* $6.00 ($5.10)

MM-26 LEATHERHEAD IN KOREA — *Packwood.* $1.00 ($.85)

MM-27 COLLEGIATE DICTIONARY—*Merriam-Webster.* $5.00 ($4.25)

FROM BELL'S XV-3...
THE PROVEN VTOL SYSTEM

No paper talk here. Bell's fixed-wing XV-3 is the *most thoroughly proven* performer in the U. S. V/STOL family. Over 400 hours of wind-tunnel, ground and flight tests have provided unmatched technical data. USAF and NASA tests have demonstrated design soundness, performance superiority and inherent safety. Reliability has been outstanding – 100% availability during Edwards Air Force Base testing, low maintenance requirements during Ames Research Center testing independent of Contractor support. Capabilities have been well demonstrated in all normal airplane and helicopter maneuvers, plus conversion procedures including power-off reconversions from airplane flight to full autorotation landing. The XV-3 prop-rotor concept is ready for military use. Now in the design stage are advanced versions that will take off vertically with *multi-ton payloads,* cruise at modern transport speeds, and touch-down vertically in confined areas.

Features that give the XV-3's Fixed Wing Prop-Rotor Approach the Edge Over Other V/STOL Systems

- **Integrated Propulsion/Control** — single system provides low speed lift and control, high speed propulsion—no auxiliary engines, propellers, fans, jets, ducts or complex wing mechanisms.
- **Conversion Flexibility**—hover to climb to cruise. Degree of conversion dictated by operational preference, virtually independent of air speed.
- **Low Disc Loading**—low downwash velocity in hover minimizes dust signature and hazards to ground personnel.
- **High Cruise Efficiency**—large diameter slow-turning prop-rotors plus minimum nonproductive drag mean economical long-range cruise.
- **STOL Capability**—200 foot ground run permits up to 50% increase in gross weight, or 200% increase in payload.
- **Hover Maneuverability**—true helicopter agility and precision control in the operationally critical low speed range.

FOR OPERATIONAL FIRSTS IN VTOL, LOOK TO

BELL HELICOPTER CORP.

Fort Worth, Texas...Subsidiary of Bell Aircraft Corporation...In its 25th year

OBSERVATION POST

This department is for new, constructive ideas. They may be controversial; they must be short. Payment at regular rates on publication. Maximum, 60 dollars.

Repeat That Question

By ASSgt Ralph W. Deaver

I REMEMBER A LOCAL-LEVEL military subjects test containing this question: "On a 1/25,000-inch scale map, what distance would three inches represent?" It was a multiple-choice question with four possible answers: "(a) 6,250 feet; (b) 75,000 inches; (c) 2,083 yards, and (d) all of the above."

Obviously, there was no *one best answer* shown. Either *a* or *b* was correct, take your choice; *c* was wrong when reduced to yards and one-third was left over. This eliminated *d* as an answer.

Yet, afterwards, an NCO asked the testing officer if it would be wrong to give the *d* answer, because "there was only a third of a yard remainder, and I figured you meant to the nearest yard." The officer agreed with him. This was fortunate for many of the others. A number later said they'd "guessed" at that solution, also.

But, what of those who had defined the question literally, and had tried to answer accordingly? They could not do so.

If only the writer of the test had used more foresight there would have been no wondering, "Should I give one of the two correct answers, or should I try to find a hidden meaning?"

Most Marines will recognize this situation. I can't remember a single local test that didn't have at least one such perplexing question.

This is not an accusation against those who compose tests. I doubt that a training officer ever advances a test in any except the best of faith, or for any purpose other than judging the level of military knowledge within the command. He knows he cannot intelligently plan a beneficial training program until he has taken a true measure of the know-how of the personnel.

Why, then, knowing as we do that the aim of training is to prepare the individual Marine for combat, do we insist on missing the boat in the appraisal of that training? Is it lack of interest? Could it be scarcity of time? Is it . . . ?

Special care is exercised in individual promotion, selection for representative duty, assignment to schools and officer selection. Decisions in such matters are not reached by one person, but by several—a board of three, five, or seven officers, for example. Why should tests, whose importance is so apparent, be the responsibility of one?

The test rough could be submitted to such a panel, individually read by them, and awkward questions marked. Marked items should be rewritten for clarity or dropped. No item should stand if found the least vague or argumentative. It could be returned to the training officer to insure that the changes did not detract from the coverage desired. Further additions or deletions could be made by him and the draft returned for the board's OK. After smoothing out the material, he would have a test to properly gauge the merits of his training program.

Test designing such as this might cause extra work for someone. It could be, however, that it would only shift the load, apportioning it upon "givers of tests" and "takers of tests," alike. I can tell you, there's scarcely any harder work than trying to choose an answer when you don't even know the question.

US MC

Hq, 6th MCR&RD
Atlanta, Ga.

Over-Shadowed, Under-Trained

By Capt R. H. Krider

TRAINING OF THE CREW-SERVED INFANTRY weapons has presented some problems. Because they form only a small segment of a larger unit, they are sometimes over-shadowed. Their training suffers as a result. Seldom do they have an opportunity to undergo well-organized and progressive training that includes firing live ammunition.

One method to correct this lack of experience was tried but fell short. Individuals were sent to division schools for instruction and expected to carry the knowledge back to their units and put it to use. This method trained individuals, but failed to improve the units to any great extent.

To intensify training and make it more effective, these units—such as mortar platoons or machine gun sections of weapons platoons—could be sent as a whole to a division school for instruction and to fire their weapons.

This training could come sometime during small unit training. A small, permanent staff would be responsible for preparation, supervision and some of the formal instruction. With lesson plans already prepared and up to date, most of the instruction could be given by the unit's own officers and NCOs. This would keep them in the instructional picture. The permanent staff would insure uniformity and continuity. With its supervision and guidance, the material would be properly prepared and presented.

This will produce some important advantages. First, more unit proficiency, experience and pride will come from specialist instruction in an atmosphere without distractions.

Second, several administrative problems will be simplified. By centralizing control of ranges and ammunition there would be less conflict. Each unit would be assured of firing its own weapons in accordance with current doctrine. Waste of ammunition would be minimized and safety measures would be simplified.

Third, methods and techniques would be standardized and experience, knowledg and training material would be used with greater advantage.

US MC

Basic School
MCS, Quantico

Walk Before You Run

By Capt R. E. Harris

AFTER 30-MONTHS OF WRESTLING with MOS requirements as a basis for writing correspondence courses and technical tests, I jumped to my feet, threw the MOS manual out a fourth deck window, lit a cigarette, sharpened three pencils, noted that there were six Coke bottles clustered on my desk and exploded. "To hell with it!" Perhaps other Marines have experienced the same frustration when determining qualifications for promotion (money) and proficiency pay (money).

Consider a few ideas that may aid in a clearer appraisal of MOS requirements. To reduce nit-picking, let's assume:

1) The ability to supervise, plan and lead cannot be set forth in an MOS requirement.

2) A Marine must know something before he can accomplish something.

3) MOS requirements should be studied, discussed and used as a factor in determining promotion eligibility.

Theoretically, all Marines must exhibit satisfactory leadership before being promoted. MOS requirements should outline aspects of each MOS that must be learned in addition to the leadership qualifications. If a Marine does not exhibit a satisfactory combination of leadership and knowledge of his MOS, he should be retrained or released. This places Marines already considered qualified in an awkward situation and can lead to much *Semper Fi* catcalling. This must be squelched if the Marine Corps is to remain at a real level of excellent combat readiness.

Ask yourself and others, can you explain all requirements of your MOS? Large groups will respond with dropping jaws, bugging eyes, sneers and a two-blocked signal for the talking doctor. But I digress.

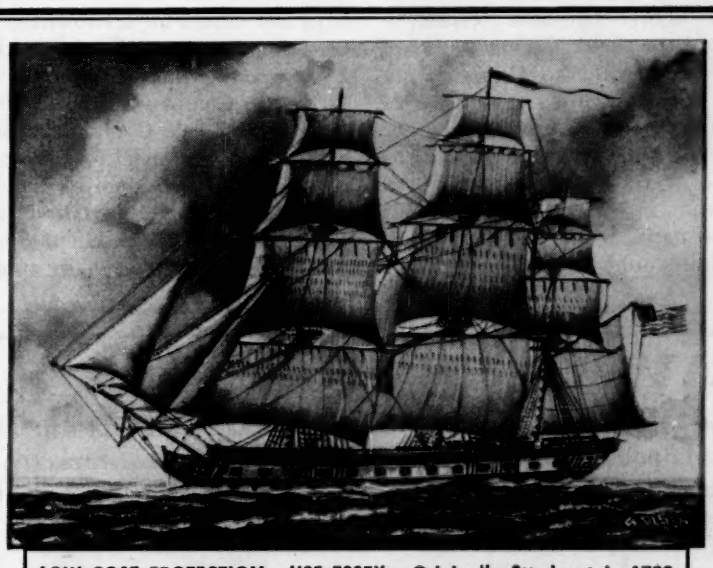
Using the 1811 MOS (page 18-3 of the *MOS manual*, with change 7) as an example and using the requirements *in the sequence* in which they appear, we can learn something. I wonder how an American youth, fresh from boot camp can "operate a tank over all kinds of terrain" if he isn't completely sure what one of those fire-breathing dragons looks like. Only after he is required to operate, execute commands with, camouflage, maintain, repair and operate tanks with attachments is he required to, "know general nomenclature, functioning, and uses of tanks, tank weapons, and ammunition."

Why can't we lead our zealous young man in a more logical sequence of requirements toward proficiency in his MOS? If MOS requirements are stated in an order of knowing first and doing next, we can correct some of the discrepancies apparent from test scores, correspondence courses and deadline reports. Why deceive ourselves that a Marine can operate, repair and ad infinitum because we say so in an MOS manual? Requirements for MOSs should be written in a sequence of progression through learning—then acquiring skills.

"Knowing" (learning) requirements should touch each group in a sequence that builds alongside or atop each other. "Being-able-to" requirements should indicate use of the total vehicle built by the "knowing" requirements. Further, ramifications of requirements need to be explained, tested, re-explained and re-tested so the man gains a complete and working knowledge of his job. When he is promoted he will know he rates it; more, he will make certain that those still trying will also be qualified.

This is no one-man job. Many heads must get together to improve these least known criteria for molding a combat organization. The place to start is with logical MOS requirements. Look at the requirements for your field. Can they be improved? That improvement may be the catalyst needed for the accomplishment of the mission. I've submitted *my* recommendations to HQMC. How are you doing?——OVER. USMC

Marine Barracks
Washington, D. C.



LOW COST PROTECTION. USF ESSEX. Originally fitted out in 1799 and built by public subscription the Essex afforded low cost protection for the people of the United States. Carrying 32 guns she gained fame on her famous raiding cruise in the South Pacific from 1812 to 1814.

Eighty years later, NAVY MUTUAL AID ASSOCIATION was founded. The purpose was to give low cost protection to members of the Navy, Marines, Coast Guard, and their families. For SEVENTY-NINE YEARS NMA has continued to provide this LOW COST PROTECTION.

Write us today for our free booklet that will explain the full services and benefits of NAVY MUTUAL AID to you.

ELIGIBILITY. All permanent and temporary officers and warrant officers of the Navy, Marine Corps, and Coast Guard, including reserve officers on extended active duty, and not over 62 years of age, are eligible.

BENEFITS IN FORCE.....$190,000,000
ASSETS .....$ 39,000,000

NAVY MUTUAL AID ASSOCIATION ORGANIZED JULY 28, 1879

Navy Mutual Aid
ASSOCIATION
NAVY DEPARTMENT WASHINGTON 25, D. C.

Talking Their Language

By 1stLt A. J. Orth

EVERY MARINE OVERSEAS IS AN AMsador. In his daily contact with the natives he is a representative of the United States. The impression he makes may be either favorable or unfavorable. What better way to make a favorable impression than to be able to speak the language of the people in whose country he serves? Through communication comes understanding. Also, he may create a sense of belonging with use of the language.

The battalion transplacement program between the 1st and 3d MarDivs offers an excellent opportunity for group language study prior to arrival overseas. During the six weeks pre-embarkation training period in the 1stMarDiv at least two separate hours a week could be spent in language study, a total of 12 hours. Three two-hour sessions a week could be held during the two weeks at sea enroute to Okinawa, another 12 hours. Granted that these 24 hours are not going to produce experts; far from it. But, they will permit elementary conversation.

Who will instruct? Most desirable is a person native to the language which in this case would be Japanese. Without such an individual, any officer or NCO with an aptitude for languages could no doubt accomplish the mission. It may be that one of the old salts has served a tour or two in the Far East and has a working knowledge of the language which he could pass along. Classes should not exceed company size, the smaller the better.

How about the program of study? What is to be used as a guide for the material to be covered? USAFI's *Spoken Japanese* course which includes records and requires no fee for group study is one available program. Another is the college correspondence course *Beginning Japanese* offered by USAFI through the University of Oklahoma. For 28 dollars the instructor could enroll and pass on his learning to the class. Perhaps best suited for a knowledge of conversational phrases is the pocketbook *Easy Japanese* published by the Charles E. Tuttle Company or something akin to it. The Tuttle Company's *Basic Japanese Conversation Dictionary* could be used with any program of study.

At Okinawa the battalion language students will have excellent opportunities for continuing their study. An overseas branch of the University of Maryland offers beginning and advanced courses in Japanese as does the Sukiran Army Education Center, an activity open to Marines. A third source of education is an acquaintance with some of the Okinawans. Instruction in English can be exchanged for lessons in Japanese. This last means of learning may be pursued by itself or used to supplement one of the formal educational programs. Familiarity with customs and way of life comes from contact with the islanders. With some knowledge of the foreign culture and ability to speak the foreign language, the Marine will be a better ambassador. USMC

3dMarDiv
FPO, San Francisco

'2' Section Tip

By 1stSgt H. C. Manion

AN OLD IDEA, A WILLING G-2 AND A photographer. Results: a faster, cheaper means of disseminating information and one answer to the bulky overlay.

The idea is old. We used it in G-2, 1st MAW in Korea in 1953 to get out the *Daily Flak Analysis Overlay*. More recently the idea was used by G-2, FMFLant in TRAEX 2-55, at Vieques.

At Vieques we used photography to lessen bulk of the *Annex Baker (Bravo)* and speed up getting out the *Enemy Situation Overlay*. Time saved normally was two or three hours.

After some trial and error, the best method was to lay the acetate tightly on the *Enemy Situation Map*. Notations are applied on the acetate with black grease pencil. Use a tripod for the camera. If light conditions are not adequate, use a flash bulb.

The marginal information is inserted on single pieces of white paper with the letters "Leroyed." Grease pencil is just as clear, however. Best size of the photos is 8 x 10; however, the 4 x 5 was used with good success.

The photo is far easier to file and it retains its clarity. I have several that are as easily read today as they were five years ago. USMC

Marine Barracks
NTC, Great Lakes

***CAVEAT EMPTOR!**

***Let the buyer beware!** So says Miriam Ottenberg in her famous series of articles exposing the used car racket. Now available in booklet form through your NFCU, this series is available free of charge.

BEWARE
- **. . . of hidden costs**
- **. . . of signing a "blank" contract**
- **. . . of the "low" down payment pitch**

Learn of the dozens of other "Bewares" to look for in buying a used car. Use the coupon below to get:

- **A free copy of *The Used Car Buyer Beware***
- **Information on how to Join NFCU *NOW***
- **Information on new low interest rates (¾ of 1% per month on *all* loans) and high dividend rates on savings.**

Clip the coupon. Mail it to NFCU or paste it to the post-paid card in the back of this magazine and mail it. *Gazette* will forward it to us.

NFCU
Room IN33
MAIN NAVY
Wash. 25, D. C.

THE NAVY FEDERAL CREDIT UNION
Room IN33 Main Navy, Washington 25, D. C.

Please send me a copy of "The Used Car Buyer Beware" and information on savings and loan through the NFCU

Name .....

Address .....

Rank ..... Branch of Service ..... Serv. No. .....

Membership limited to Commissioned and Warrant Officers, Navy and Marine Corps. MCG 3-60

Marine-to-Marine

By 1stLt John F. O'Connor

MEMBERS OF THE 2DMARDIV'S 2DBN, 6thMarines were particularly interested in Robert B. Asprey's *A Military Report from Spain* (GAZETTE: Oct '59). Our battalion trained with a reinforced Spanish Marine company and battalion staff 21-28 February 1959 in amphibious landing techniques. And officers and men of 2/6 feel a marked kinship for the Spanish military.

Working as an integrated unit, the US and Spanish Marines landed at Almeria, Spain. The Spaniards were incorporated into each company and employed as an additional platoon. Fortunately, there were many US Marines who spoke Spanish and there was no problem in communicating ideas.

After the landing, the individual companies held night training exercises. A Spanish squad worked with each US platoon.

Most of the Spanish Marines were veterans of limited combat engagements in the Spanish Sahara. They excelled in night movement and the strict discipline needed for effective night operations. Once in ambush position, they would remain motionless for hours.

A few days after the initial joint landing, the Spanish Marines returned to their ship. Early the next morning, they made their own amphibious landing, applying what they had observed and practiced. The exercise was observed by high ranking officers of the Spanish Navy and Army and US Marine and Army officers stationed in Spain. Results of the operation were highly gratifying to all.

Unlike the American Marines, a large number of the Spaniards were draftees. Nevertheless, they exhibited a contagious enthusiasm for their duties. Many of the NCOs and junior officers were grizzled veterans. Corporals had as much as ten years service. One platoon commander had 14 years commissioned service. In the Sahara engagements, they had been employed with units of the Spanish Army. They had, however, kept the esprit characteristic of Marines.

Physical aid, advisers and liaison officers serve an admirable purpose. There is no substitute, however, for man-to-man contact all the way up and down the ladder. USMC

86-22 Dongan Ave.
Elmhurst 73, N. Y.

Quantico Auto Sales Inc.

Nick Katsarellis, Pres.
C. Ralph Ford, V.P.
Quantico, Va.
Trojan 5-2105

Serving the Marine Corps at the same location for 40 years

Just Outside MCS Gate #2

- *Going Overseas?* Don't let your car depreciate. Turn it in now! Get today's market value on the purchase of a new car when you return.
- *Overseas Now*—Write us about a factory delivery package on a new car when you return.

Pontiac ★ Lark ★ Vauxhall

Sales and Quality Service
★ Bank-rate Auto Financing ★
Home of Safety-Check Used Cars

The Check HONORED 'ROUND The WORLD

Marines at home and abroad keep their accounts at the Marines home bank—the First National of Quantico. There's good reason—for over 35 years the First National has been serving the men of the Corps faithfully. It has gained an international reputation for integrity and its checks are known and honored around the world.

Savings • Checking Accounts • Loans • Christmas Clubs
Auto Financing at a Low 3½%

The First National Bank OF QUANTICO

4 offices

Next to the Marine Exchange, Mainside • On Route #1, Triangle
On Potomac Avenue in Quantico • On Route #1 North, Dumfries

THE GAZETTE GLOSSARY

BMEWS—Ballistic Missile Early Warning System

CEP—Circular Error Probable

CHINATS—Chinese Nationalists

CVA—Aircraft Carrier, attack

EAD—Extended Active Duty

FSR—Force Service Regiment

GCA—Ground Control Approach

GV-1—Inflight Refueler Aircraft (Lockheed)

HAR—Heavy Artillery Rocket

ICBM—Intercontinental Ballistic Missile

IRBM—Intermediate Range Ballistic Missile

LZ—Landing Zone

MAAG—Military Assistance Advisory Group

MABS—Marine Air Base Squadron

MARS—Marine Aircraft Repair Squadron

MCAAS—Marine Corps Auxiliary Air Station

MCAS—Marine Corps Air Station

MCEB—Marine Corps Equipment Board

MCEC—Marine Corps Education Center

MCLFDC—Marine Corps Landing Force Development Center

MTBn—Motor Transport Battalion

MX—Marine Exchange

NRL—Naval Research Laboratory

OPNAV—Office of the Chief of Naval Operations

PACPHIBEX — Amphibious Landing Exercise, Pacific

SAC—Strategic Air Command

TAFDS—Tactical Airfield Dispensing System

TRALEX—Training Landing Exercise

UDOFT—Universal Digital Operational Flight Trainer

UDT—Underwater Demolition Team

USNTC—Naval Training Center

THE SCHOOL SOLUTION

(Answers to questions on page 52)

1 (c) Reference: MCS 2-2, paragraph 51b. Contours equally spaced all the way down indicate a uniform slope, regardless of the fact that the decline may be gradual or steep. A convex slope would have the contour lines farther apart at the top and close together at the bottom, whereas the concave slope is indicated by contour lines close together at the top and farther apart at the bottom.

2 (b) Reference: MCS 2-2, paragraph 31. The angle between grid north and magnetic north is commonly called the G-M angle. The angle is west when magnetic north is west of grid north and east when magnetic north is east of grid north. When magnetic north is west of grid north, the grid azimuth equals the magnetic azimuth minus the G-M angle. The G-M angle is 2°30′, which subtracted from the grid azimuth of 88°15′, results in the answer of 85°45′.

3 (d) Reference: FM 30-5, paragraph 87.

a. is incorrect because EEI are never constant or unvarying.

b. is incorrect because EEI are not entered in the worksheet.

c. is incorrect because the intelligence cycle produces combat intelligence, not EEI.

4 (a)—4; (b)—1; (c)—3; (d)—2 Reference: TIP (J)1, paragraph 34b. The reference furnishes the correct definitions of the various types of photography.

5 (a), (b), (c) and (d) Reference: TIP (EC)2, paragraph 12c.

6 (a) Reference: FM-21-40, para. 96b. Shortly after the beginning of a fall-out, the fall-out material is deposited rapidly, with the dosage rate rising for a short time, reaching a peak, and then starting to decrease.

7 (a) Reference: FM 31-60, paragraph 15. A hasty crossing capitalizes on speed and surprise and serves to continue the momentum of the attack.

8 (b) Reference: TIP (EC)3, paragraph 38. Administrative and logistic matters may be included in paragraph (4) of the Operation Order, or issued as a separate Admin Order. They are never included as an annex to the Operation Order.

9 (d) Reference: TIP(INT)2, paragraph 11a(3). This plan reflects the photographic requirements of landing force units, as adjusted to the capabilities of the available photographic agencies. Although the photos are, for the most part, for the use of the landing force, the Amphibious Task Force Commander often controls the agencies (aircraft) which procure the photos. Furthermore, naval elements, such as Gunfire Support Groups, will have requirements for aerial photos and their requests will have to be coordinated with landing force needs.

10 TAOR's are employed when conditions of wide unit separation require a distinction between tactical localities to be seized and/or defended and the extensive intervening areas which need only be maintained under surveillance or security. Reference: TIP(J)4, paragraph 16f(13)(c).

WHY DID JAPAN LOSE THE WAR?
read
KŌGUN
皇軍
A factual history of the Japanese Army and its operations in the Pacific War
by
SABURO HAYASHI
in collaboration with
ALVIN D. COOX

$4.50
Bookshop Code #K-1
Published by
The Marine Corps Association
Box 1844, Quantico, Va.

Marine Corps 1960

Leaders of the Corps

An unofficial digest of orders and news of Marine leaders.

★ General Officers ★

Transfers

Dawson, M. L.
Fr AirFMFPac
To MilArmisCom, Korea — May
Hittle, J. D. — Feb
Fr HQMC
To DoD
John, P. W.
Fr HQMC
To CinCSo — Apr

Deaths

MajGen Randolph C. Berkeley (Ret) died 31 January at US Naval Hospital, Beaufort, S. C. Gen Berkeley, who was 85, was the oldest living Marine Corps general officer. He was the father of two Marine sons, MajGen James P. Berkeley, CG, 2dMarDiv, and Col Randolph C. Berkeley, Jr., stationed at MCAS, Cherry Point. Winner of the Medal of Honor in 1914 for heroism at Vera Cruz, Mexico, Gen Berkeley retired from the Marine Corps in 1939 after 40 years of service. Burial was in Arlington National Cemetery.

Released to Inactive Duty

Randall, C. A. — Feb

Colonels

Permanent Promotions

Atkinson, W. H. — Jan
Chaisson, J. R. — Jan
Charley, R. A. — Jan
Walker, A. — Feb
Wood, W. A. — Jan

Transfers

Beamer, F. X. — 9906
Fr HQMC — EDWDJan
To NNSYD PTSMH, Va
Bowman, G. S. — 9907
Fr HQMC — EDWDFeb
To CinCPac
Butcher, J. O. — 9908
Fr MCB, CAMLEJ
To HQMC — By23Feb
Morgan, G. D. — 9908
Fr MCSA, Phila — 1Feb
To HQMC

Retired

Crowe, H. P. — 9906
Portsmouth, Va. — ED29Feb

Deaths

Kelleher, M. J.
Belle Haven, Va — 1Jan

Recent Command and Staff Assignments

Gray, J. A., Inspector, 2dMAW
Masters, J. H.
Legis Asst to CMC, HQMC
Munday, J. R., DivScols, 1stMarDiv
Newton, G. R., CO, RTRegt, MCRD, SDiego
Quigley, R., CO, MCSupScol, Montford Pt
Stapp, D. H., Comm Off, 2dMAW

Lieutenant Colonels

Permanent Promotions

Allen, P. L. — Jan
Banda, M. D. — Jan
Bigelow, E. H. — Jan
Bowes, B. M. — Jan
Bouchard, L. H. — Jan
Cedispoti, G. S. — Jan
Daddazio, A. G. — Jan
Daniel, H. L. — Jan
Faw, D. L. — Jan
Fening, R. J. — Jan
Fenton, F. I. — Jan
Ferguson, G. E. — Jan
Fields, J. R. — Jan
Flynn, M. E. — Jan
Galbreath, D. W. — Jan
Garber, C. D. — Jan
Graham, L. L. — Jan
Hammerbeck, E. E. — Jan
Hansen, N. M. — Jan
Harrison, P. — Jan
Holmgrain, E. S. — Jan
Houghton, K. J. — Jan
Hunt, R. M. — Jan
Jacobi, H. L. — Jan
Jerue, G .E. — Jan
Jeter, R. B. — Jan
Kaenzig, W. W. — Jan
Kicklighter, E. C. — Jan
Kovich, G. J. — Jan
Kuhn, R. C. — Jan
Leitner, W. A. — Jan
Lemarie, P. A. — Jan
Lemay, J. — Jan
Mabie, H. L. — Jan
Manion, T. A. — Jan
Mann, T. J. — Jan
McLellan, P. F. — Jan
McLeod, S. N. — Jan
Mentzer, J. F. — Jan
Moret, A. T. — Jan
Morton, R. — Feb
Motelewski, J. B. — Jan
Nichols, W. P. — Jan
Noren, W. C. — Jan
O'Donnell, J. J. — Jan
Parker, G K. — Jan
Peck, R. C. — Jan
Perkins, T. L. — Jan
Peterson, D. M. — Jan
Reid, G. K. — Jan
Remington, R. M. — Jan
Resch, R. E. — Jan
Rottenberg, A. M. — Jan
Sadler, M. O. — Jan
Schumaker, D. W. — Jan
Sitter, C. L. — Jan
Spuhler, R. H. — Jan
Stankus, H. W. — Jan
Staples, M. M. — Jan
Steman, L. H. — Jan
Valente, R. L. — Jan
Voss, W. G. — Jan
West, C. L. — Jan
Williamson, H. P. — Jan
Wojcik, M. F. — Jan
Wood, R. I. — Jan

Temporary Promotions

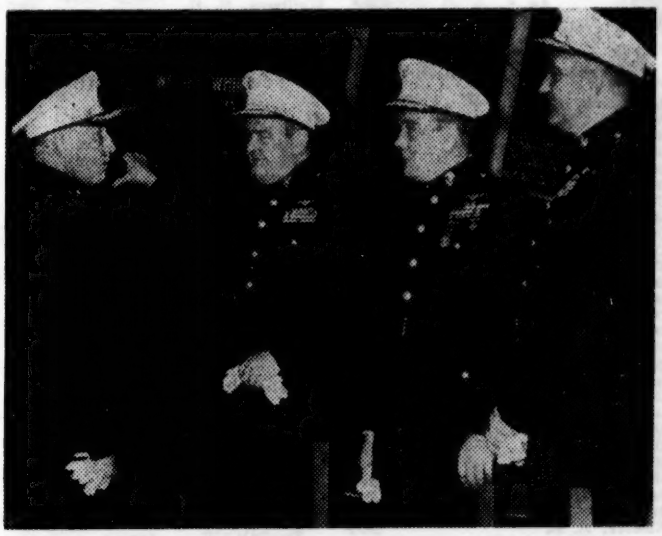
Heintz, E. J. — Jan

Permanent Promotions, Reserve

Dantimo, D. — Jan
Faught, R. T. — Jan

Selected for Promotion to Col, Reserve

Adams, H. K.
Andre, D. C.
Bardet, P. E.
Barron, W. W.
Barry, R.
Benjamin, R. F.
Blandford, J. E.
Bisgard, A. N.
Bransom, H. W.
Brock, J. H.
Bryson, R. L.
Case, L. B.
Chinn, G. M.
Collins, J. V.
Crockett, R. H.
Cushing, W. H.
Dancey, C. L.
Dickinson, W. J.
Dilworth, R.
Drury, F. C.
Duval, H. S.
Erskine, J. C.
Farkas, D. E.
Faulk, J. J.
Finch, J. H.
Fitzgerald, J. I.



FOUR VETERAN Marine airmen inspect a 1919 "Jenny" two-place trainer at Greenfield Museum, Dearborn, Mich. From left are LtGen Karl S. Day, USMCR (Ret), BGen Harry Van Lieu, USMCR, BGen William H. Klenke, Jr., USMCR, and BGen Frederick E. Leek, Director, Marine Air Reserve. The four Generals were in Detroit to bestow the Reserve rank of brigadier general on Gen Klenke, who is now senior officer of Marine Air Reserve units in Michigan.

Fredey, R. B.
Gaffney, W. L.
Golden, N. H.
Graves, J. W.
Gray, C. D.
Griffith, J. B.
Hagberg, G. P.
Hall, B. F.
Hanan, W. J.
Hanson, A. B.
Hegner, C. F.
Henri, R.
Hicks, L. G.
Hiner, H. L.
Houston, L. W.
Jackson, D. L.
Jacobs, R. D.
Kirk, K. J.
Kuns, C. W.
Lahey, J. H.
Langenfeld, H. C.
Laughlin, C. H.
Livingston, D. K.
Long, J. W.
Martin, W. N.
Mayo, R. S.
McCalla, J. L.
McDonald, J. E.
McGee, E. J.
Messer, J. S.
Messer, J. S.
Meyersburg, R. B.
Migliore, J. L.
Miller, H. S.
Miller, J. M.
Mitchell, N. L.
Mobley, T. E.
Moore, T. F.
Morgan, T. G.
Murphy, K. E.
Oldfield, W. B.
Olson, M. E.
Oppenheimer, H. L.
Patrone, M. P.
Payne, F. M.
Pritchard, H. E.
Richardson, L. G.
Ridder, H. H.
Roberts, W. C.
Roettinger, P. C.
Rogers, E. J.
Rutledge, J. M.
Schacher, M.
Schechter, I.
Schmid, R. C.
Shepard, R. B.
Simpson, R. M.
Simpson, W. A.
Slay, J. M.
Slezak, L. F.
Smathers, G. A.
Smith, C. G.
Smith, S. W.
Sparrow, L.
Spurlock, R. T.
Sturgeon, R. D.
Swanson, B. J.
Taylor, D. C.
Thomas, C. M.
Topping, D. R.
Twitty, L. M.
Vanderhoof, R. A.
Wayman, J. H.
Weller, D. L.
Williams, D. M.
Wyman, C. O.

Transfers

Bosshard, L. H. — 3002
Fr BARSTOW CALIF — ED26Feb
To ARMY DEPT Richmond, Va.
Dair, W. G. — 7304
Fr AirFMFPAC
To HQMC — By28Mar
Eisele, H. A. — 7333
Fr 1stMAW — EDWDFeb
To COMCAB EAST
Elrod, R. H. — 0302
Fr MCS QUANT — EDWDJan
To Tengan, Okinawa
Lemarie, P. A. — 7302
Fr 3dMAW
To HQMC — By15Mar
Sperry, J. W. — 0302
Fr Ofc of CNO OP60 — 1Feb
To 3dMarDiv
Woodbury, H. F. — 0302
Fr 2dMarDiv — EDWDJan
To MCS, Quant

Retired

Adams, W. O. — 3002
MCRD, SDiego — ED31Jan
Bennett, E. C. — 2502
1Feb
Bozarth, H. G. — 1320
MCB, CamLej — ED31Jan
Heintz, E. J. — 0130
8thMCRRD — ED31Jan
Kolp, H. R. — 7304
ED29Feb

Recent Command and Staff Assignments

Ahee, D., MWSG-27
Bartram, V. L., CO, 3dServBn, 3dMarDiv
Jones, S. R., 1st Tank Bn, 1stMarDiv
Lanigan, J. P., 2dRTBn, MCRD, PISC
Sullivan, F. E., ExecO, RTRegt, MCRD, PISC

Majors

Permanent Promotions

Abrahams, C. W.	Feb
Airheart, W. C.	Feb
Barraneau, W. E.	Feb
Bloomer, D. M.	Feb
Bohn, R. D.	Feb
Bowen, E. D.	Feb
Clary, M. A.	Feb
Connelly, F. G.	Feb
Corcoran, C. T.	Feb
Costello, K. W.	Feb
Cullins, G. H.	Feb
Derrickson, E. W.	Feb
Dial, O. E.	Feb
Dodenhoff, G. H.	Feb
Dormady, W. K.	Feb
Edwards, D. L.	Feb
Engelhardt, L. J.	Feb
Galbraith, D. L.	Feb
Goebel, J. L.	Feb
Grey, J. R.	Feb
Haines, F. B.	Feb
Hamilton, R. W.	Feb
Heywood, R. A.	Feb
Hovatter, E. M.	Feb
Jackson, G. K.	Feb
Judge, D. R.	Feb
Kaufer, E. E.	Feb
Keeling, H. A.	Feb
Kellogg, W. C.	Feb
Kelly, W. D.	Feb
King, P. D.	Feb
Kirsch, O. H.	Feb
Laspada, J. F.	Feb
Laker, J. W.	Feb
Mariades, J. P.	Feb
Meyer, R. A.	Feb
Miller, R. R.	Feb
Murray, E. D.	Feb
Nelson, R. E.	Feb
Nolan, K. D.	Feb
Pointer, E. V.	Feb
Schuster, S. L.	Feb
Schwartz, L. R.	Feb
Shank, J. W.	Feb
Smith, A. C.	Feb
Smith, A. R.	Feb
Stawicki, T. A.	Feb
Straner, F. L.	Feb
Thompson, E. W.	Feb
Vining, N.	Feb
Walls, E. L.	Feb
Wears,, L. G.	Feb
White, T. A.	Feb
Zagrodzky, H. H.	Feb

Permanent Promotion, Reserve

Gross, N.	Jan

Transfers

Duncan, E. F.	0302
Fr 1stMarDiv	
To CincLant Stf	By15Feb
Kositch, A.	0302
Fr 1stMarDiv	
To HQMC	By15Feb

Retired

Anderson, W. H.	3002
MCSA, Phila	29Feb
Arnold, R. W.	0130
MCB, CamPen	31Jan
Dixon, R. N.	0130
Denver, Colo	29Feb
Kelly, J. L.	0302
MCAS, El Toro	31Jan
Kessler, W. D.	1Feb
McNabb, H. E.	3302
1stMarDiv	31Jan
Stockdale, A. F.	3202
	1Feb

Deaths

Pendleton, R. S.	
Atlanta, Ga	3Feb
St. John, R. R.	
2dMAW	14Jan
Sherwood, F. M.	
Palm Beach, Fla	4Feb

Captains

Accepts Regular Commission

Losee, R. M.	Feb

Temporary Promotions

Allen, L. J.	Jan
Dalrymple, D. A.	Jan
Kerr, T. C.	Jan
Mitchell, W. F.	Jan
Wellborn, B. D.	Jan
Welsh, K. H.	Jan
Woody, L. D.	Jan

Temporary Promotions, Reserve

Bernhart, J. A.	Jan
French, W. P.	Jan
Jenkins, R. L.	Jan
Kepler, G. E.	Jan
Larson, D. E.	Feb
Robertson, T. E.	Jan
White, K. E.	Jan

Selected for Promotion to Major, Reserve

Frazier, C. L.
Nehf, R. A.
Nelson, M. L.

Transfers

Austin, H. M.	7307
Fr NAS, CorpC	
To NAS, Pncla	3Mar
Berry, N.	6502
Fr 2dMAW	
To Albuquerque, NMex	By25Mar
Bischoff, J. J.	6602
Fr 2dMAW	
To Albuquerque, NMex	By25Mar
Cochran, J. R.	0302
Fr 1stMarDiv	
To MCS, Quant	1Mar
Costello, T. L.	0302
Fr MCS, Quant	
To MCB, CamLej	By20Mar
Graves, F. E.	4002
Fr MCAS, CherPt	
To MCRD, SDiego	By10Mar
Gravel, M. J.	0302
Fr USS Rochester	EDWDMar
To MCRD, SDiego	
Hale, E. W.	4002
Fr MCRD, SDiego	EDWDMar
To 3dMarDiv	
Hardee, L. H.	0302
Fr MCRD, SDiego	EDWDMar
To Adak, Alaska	
Harlan, G.	7333
Fr MCAAS, Yuma	EDWDFeb
To 2dMAW	
Johnson, C. H.	0302
Fr USS Helena	EDWDFeb
To MCRD, SDiego	
Lumpkin, A. L.	0302
Fr MCRD, SDiego	EDWDFeb
To USS Rochester	
Morrow, T. E.	7332
Fr El Toro	ED15Mar
To VX6	
Newton, D. F.	7302
Fr 3dMAW	EDWDMar
To 2dMAW	
Stanton, D. C.	0802
Fr MCS, Quant	EDWDMar
To 3dMarDiv	
Walsh, W. V.	0302
Fr 1stMCRRD	EDWDFeb
To 3dMarDiv	

Released from Active Duty

Clapper, P. R.	0302
HQMC	EDWDFeb

Resignations

Murphy, P. V.	4Jan

Retired

Bailey, W. H.	2010
	1Feb
Bowen, O. T.	2002
	ED29Feb
Dodson, M. C.	3402
HQMC	ED29Feb
Lamm, M. A.	3202
	ED29Feb
Owensby, A. F.	0302
MarPac	ED29Feb

Deaths

Blanchard, J. E.	0130
NATTC Memphis, Tenn	25Jan
Evans, E. E. (Ret.)	
USNH CamPen	18Feb

Revocation of Orders

Berling, R. R.	1803

Recent Command and Staff Assignments

Cox, M. A., CO, WMCo, MCB, CamPen

1st Lieutenants

Accepts Regular Commission

Baldwin, J. C.	Feb
Becker, N. G.	Feb
Black, H.	Feb
Bode, D. H.	Feb
Brown, C. W.	Feb
Brutcher, S. P.	Feb
Bucknam, H. V.	Feb
Byram, J. C.	Feb
Cannon, C. E.	Feb
Cantrell, R. L.	Feb
Clayes, A. I.	Feb
Cobb, C. S.	Feb
Cooper, J. G.	Feb
Davis, W. C.	Feb
Deitrick, R. E.	Feb
Derieg, P. L.	Feb
Douglas, R. T.	Feb
Downing, G. H.	Feb
Elofson, R. H.	Feb
Erickson, B. R.	Feb
Griffay, D. M.	Feb
Hanna, D. K.	Feb
Hargraves, W. B.	Feb
Harris, J. E.	Feb
Hatfield, C. D.	Feb
Hill, L. H.	Feb
Keathley, J. N.	Feb
Keating, D. J.	Feb
Layman, P. B.	Feb
Lewis, D. E.	Feb
Magee, J. T.	Feb
Marquette, E. O.	Feb
Mason, J. L.	Feb
McGuire, J. S.	Feb
Miller, J. A.	Feb
Molineaux, J. F.	Feb
Morgan, J. E.	Feb
Palmore, C. A.	Feb
Park, R. K.	Feb
Patrick, J. L.	Feb
Peterson, R. L.	Feb
Prewitt, R. C.	Feb
Pulcheon, J. H.	Feb
Ramsay, C. J.	Feb
Ridings, W. H.	Feb
Rinehart, B. D.	Feb
Spence, J. R.	Feb
Stevenson, S. H.	Feb
Van Nortwick, J.	Feb
Wall, M. N.	Feb
Wallace, L. C.	Feb
West, H. B.	Feb
Wilson, D. D.	Feb
Wogan, C. M.	Feb
Zeterburg, D. P.	Feb

Permanent Promotions

Oaks, C. W.	Feb
White, F. V.	Jan

Temporary Promotions

Bird, M. T.	Jan
Bronson, P. W.	Feb
Comer, D. R.	Jan
Crafts, R. B.	Jan
Crawford, F. A.	Jan
Demoss, E. R.	Jan
Erickson, J. H.	Feb
Harrison, G. B.	Jan
Haver, J. R.	Feb
Hawes, P. E.	Jan
Kerstein, K. T.	Jan
Lacroix, C. M.	Jan
Lott, B.	Feb
Mahony, T. E.	Jan
McLeran, C. S.	Feb
Meekins, E. L.	Jan
Moffett, D. L.	Feb
Morrison, E. J.	Feb
Nebel, R. M.	Feb
Quiones, B. J.	Jan
Schober, F. J.	Feb
Sheridan, P. F.	Jan
Smith, A. H.	Feb
Starck, P. T.	Jan
Sydnor, G. C.	Jan
Thornton, R. D.	Jan
Tucci, J.	Jan

Selected for Promotion to Capt, Reserve

Call, M. L.
Mooney, L. K.
O'Donnell, M. E.

Transfers

Abbate, P.	2502
Fr Ft Holabird, Md	EDWDFeb
To 1stMarDiv	
Amidon, A. L.	1302
Fr 1stMarDiv	
To Ft Belvoir, Va	6Mar
Burton, J. J.	0302
Fr USS Northampton	ED18Mar
To MCRD, PISC	
Craige, J. A.	0302
Fr 2dMarDiv	
To MCS, Quant	1Mar
Dickey, C. R.	2502
Fr ForTrps FMFLant	
To MCS, Quant	1Mar
Flynn, J. F.	1802
Fr 1stMarDiv	
To MCB, CamPen	By20Mar
Goode, C. J.	0302
Fr 3dMarDiv	EDWDMar
To MCRD, PISC	
Liegerot, D. A.	7333
Fr NAS, Pncla	ED15Feb
To 3dMAW	
Louvaris, A. C.	0302
Fr Ft Holabird, Md	EDWDFeb
To 2dMarDiv	
MacFarlane, J. L.	7335
Fr 3dMAW	1Mar
To 1stMarBrig	
Marshall, L.	9901
Fr MCS, Quant	EDWDFeb
To MCB, CamLej	
O'Brien, R. L.	2502
Fr MCS, Quant	EDWDMar
To HQMC	
Robinson, C. D.	0302
Fr 3dMarDiv	ED15Feb
To Princeton Univ	
Slack, P. D.	0302
Fr NAS, PaxRiv	EDWDMar
To USNA, Anna	
Smith, E. F.	2710
Fr ForTrps FMFPac	
To Huntsville, Ala	By19Feb
Veno, S. J.	9901
Fr MCS, Quant	EDWDFeb
To ForTrps FMFLant	

Released from Active Duty

Stolp, J. A.	7335
1stMarBrig	EDWDMar

Deaths

Eades, R. L.	
1stMAW	17Jan

Revocation of Orders

Bushar, C. W.	2502
RelAd	
Drake, R. C.	0802
RelAd	
Furman, R. K.	0302
RelAd	
Hezel, J. D.	0130
RelAd	
Matthews, J. H.	1802
RelAd	
Stephens, A. C.	7333
RelAd	

2d Lieutenants

Transfers

Abington, R. C.	7399
Fr MCS, Quant	
To NAS, Pncla	By16Mar
Adams, B. W.	9901
Fr MCS, Quant	EDWDMar
To 2dMarDiv	
Amand, N. S.	7399
Fr MCS, Quant	
To NAS, Pncla	By30Mar
Amsler, J. H.	9901
Fr MCS, Quant.	EDWDMar
To MCB, CamPen	
Archambault, A. E.	7399
Fr MCS, Quant	
To NAS, Pncla	By16Mar
Babbs, K. J.	7399
Fr MCS, Quant	
To NAS, Pncla	By16Mar
Baier, J. F.	9901
Fr MCS, Quant	EDWDMar
To 1stMarBrig	
Bailey, E. R.	7399
Fr MCS, Quant	
To NAS, Pncla	By23Mar
Bean, G. W.	9901
Fr MCS, Quant	EDWDMar
To MCB, CamPen	
Belcher, W. R.	9901
Fr MCS, Quant	EDWDMar
To 1stMarBrig	
Bogard, B. D.	9901
Fr MCS, Quant	EDWDMar
To MCB, CamPen	
Boone, F. E.	9901
Fr MCS, Quant	EDWDMar
To Ft Meade, Md	

Boston, J. C. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Brown, J. L. 9901
Fr MCS, Quant EDWDFeb
To MCB, CamLej

Burgess, R. E. 9901
Fr MCS, Quant EDWDFeb
To ForTrps FMFLant

Burns, E. B. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Buske, K. R. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Capen, R. D. 9901
Fr MCS, Quant EDWDFeb
To 1stMarBrig

Carr, D. R. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Carter, R. E. 9901
Fr MCS, Quant EDWDFeb
To 1stMarDiv

Clarence, D. L. 9901
Fr MCS, Quant EDWDMar
To 3dMarDiv

Cooper, R. S. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Cupples, G. J. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

De Ornellas, C. L. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Dixon, E. E. 9901
Fr MCS, Quant EDWDMar
To 1stMarBrig

Dominquez, M. E. 9901
Fr MCS, Quant EDWDFeb
To MCB, CamLej

Ducote, J. A. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Dvorak, D. S. 9901
Fr MCS, Quant EDWDFeb
To MCB, CamLej

Edwards, R. E. 9901
Fr MCS, Quant EDWDApr
To ForTrps FMFLant

Elting, V. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Esheiman, W. P. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Estes, H. D. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Etcho, L. L. 7399
Fr MCS, Quant
To NAS, Pncla By16Mar

Fairchild, C. R. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Fernandez, A. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Flynn, J. F. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Fox, J. I. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Freeman, J. A. 9901
Fr MCS, Quant EDWDMar
To 3dMarDiv

Gardner, R. B. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Gardner, M. R. 9901
Fr NAS, Pncla
To MCS, Quant By15Mar

Geis, R. W. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Gibson, W. C. 9901
Fr MCS, Quant EDWDMay
To ForTrps FMFPac

Green, M. M. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Griggs, G. R. 9901
Fr MCS, Quant EDWDMar
To 1stMarBrig

Halbert, R. O. 9901
Fr MCS, Quant EDWDMar
To ForTrps FMFLant

Hanle, R. L. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Hastings, B. 9901
Fr MCS, Quant EDWDFeb
To 1stMarDiv

Hicks, H. D. 9901
Fr MCS, Quant EDWDApr
To 1stMarDiv

Horsfall, R. S. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Howe, J. A. 9901
Fr MCS, Quant EDWDFeb
To ForTrps FMFLant

Huddy, N. W. 9901
Fr MCS, Quant EDWDApr
To ForTrps FMFLant

Hunnicutt, J. E. 9901
Fr MCS, Quant EDWDMar
To 3dMarDiv

Hyatt, L. W. 9901
Fr MCS, Quant EDWDMar
To 2dMarDiv

Hyatt, W. R. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Jackson, G. A. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Jenkins, R. S. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Johnson, R. E. 9901
Fr MCS, Quant EDWDMar
To 1stMarBrig

Johnston, C. J. 9901
Fr MCS, Quant EDWDMar
To ForTrps FMFPac

Johnson, D. C. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Katzin, K. 9901
Fr MCS, Quant EDWDMar
To 2dMarDiv

Kelley, R. C. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Kemper, D. L. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Kiely, D. J. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Knief, J. H. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Koury, V. A. 9901
Fr MCS, Quant EDWDMar
To 2dMarDiv

Land, E. J. 9901
Fr MCS, Quant EDWDMar
To 1stMarBrig

Larowe, W. C. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Lee, T. A. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Lemmel, K. G. 9901
Fr MCS, Quant EDWDFeb
To 1stMarDiv

Ling, H. A. 9901
Fr MCS, Quant EDWDMar
To 1stMarBrig

Mac Eachin, D. J. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Marks, A. M. 9901
Fr MCS, Quant EDWDApr
To ForTrps FMFLant

McCormack, R. D. 9901
Fr MCS, Quant EDWDFeb
To 3dMarDiv

McCormick, R. G. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Meekins, E. L. 9901
Fr MCS, Quant EDWDMar
To ForTrps FMFPac

Menning, F. H. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Messerschmidt, D. B. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Metry, R. A. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Mickey, R. B. 9901
Fr MCS, Quant EDWDMar
To 1stMarBrig

Miro, R. A. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Miskow, K. P. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Morris, R. S. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Muller, M. E. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Nash, W. A. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Naviaux, J. C. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Neff, R. L. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Ostermann, G. A. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Pegler, R. N. 9901
Fr MCS, Quant EDWDApr
To 1stMarBrig

Pieri, F. L. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Pittman, R. L. 9901
Fr MCS, Quant EDWDApr
To ForTrps FMFLant

Pummill, J. W. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Rider, J. W. 9901
Fr MCS, Quant EDWDMay
To MCB, CamLej

Rucksdashel, R. N. 9901
Fr MCS, Quant EDWDMar
To 3dMarDiv

Sarvi, A. R. 9901
Fr MCS, Quant EDWDMar
To MCB, CamPen

Searle, R. E. 9901
Fr MCS, Quant EDWDMar
To 3dMarDiv

Selby, M. D. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Shuter, D. V. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Skellenger, J. R. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Skrzypinski, R. E. 9901
Fr MCS, Quant EDWDFeb
To 3dMarDiv

Snee, J. M. 9901
Fr MCS, Quant EDWDFeb
To 3dMarDiv

Stanford, G. R. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Stockwell, J. R. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Thompson, T. W. 9901
Fr MCS, Quant EDWDFeb
To ForTrps FMFLant

Topham, J. T. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Town, K. R. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Vann, F. M. 9901
Fr MCS, Quant EDWDFeb
To 3dMarDiv

Waldron, R. R. 9901
Fr MCS, Quant EDWDApr
To ForTrps FMFLant

Waterhouse, L. M. 9901
Fr MCS, Quant EDWDFeb
To 1stMarBrig

Wilke, M. R. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Williams, B. B. 9901
Fr MCS, Quant EDWDMar
To 1stMarDiv

Williams, W. S. 7399
Fr MCS, Quant
To NAS, Pncla By23Mar

Wilmore, W. S. 7399
Fr MCS, Quant
To NAS, Pncla By30Mar

Deaths

Thomas, L. B. 7331
MCAAS, Yuma 1Feb

Revocation of Orders

Cutler, R. L. 9901
Asg Acdu

To Active Duty

Elekes, J. S. 9901
Phoenix, Ariz. EDWDFeb

Fricker, J. T. 9901
Santa Barbara, Calif EDWDFeb

Hovey, J. R. 7399
Winter Garden, Fla. EDWDFeb

Kirk, R. W. 7399
Odessa, Texas EDWDMar

Warrant Officers

Temporary Promotions

Needham, E. C. Jan
Fr W3
To W4

Stone, D. M. Jan
Fr W3
To W4

Selected for WO-1

Following Marines tentatively selected for Warrant Officer (W-1) in MOS fields indicated. They reported to MCS 29 Feb for a six-week screening course. Successful candidates then receive warrant and attend new 10-week Warrant Officer Basic Course, also at Quantico.

0130

Beaver, D. S. ASSgt

Bowden, H. C. ASSgt
Byrne, L. T. ASSgt
Capps, D. G. ASSgt
Girvin, B. G. ASSgt
Hainsworth, J. J. ASSgt
Holbrook, J. H. AGySgt
Hufnagel, E. A. ASSgt
Johann, J. A. AGySgt
Kolb, J. G. AGySgt
Lakin, W. P. AGySgt
Lambert, F. A. ASSgt
Mattox, L. AGySgt
McDermett, P. L. ASSgt
Mockenhaupt, R. J. ASSgt
Morgan, L. D. ASgt
Moriarty, M. E. ASSgt
Mulherin, B. J. ASSgt
Olsen, J. G. ASSgt
Olson, R. V. ASSgt
Pitts, T. E. ASSgt
Porter, B. B. ASSgt
Prato, S. J. AGySgt
Preston, T. R. ASSgt
Targett, D. H. ASSgt
Wieden, C. ASSgt
Werner, D. B. ASSgt
Yale, C. R. ASSgt

0803

Dietz, R. G. Sgt

1310

Chavez, L. S. ASSgt
Grice, M. M. ASSgt
Heusner, R. A. ASSgt

1320

Backo, J. L. AGySgt
Dangler, J. C. ASSgt
Guthrie, C. L. ASgt

1390

Hassen, L. C. ASgt
Johnson, D. E. SSgt
Worcester, F. B. ASSgt

1402

Bunting, J. E. ASSgt

2010

Flournoy, W. E. ASSgt
Pearce, A. R. ASSgt

2025

Carpenter, D. O. ASgt
Simons, F. J. ASgt

2040

Bishop, J. W. AMSgt
Deitrick, W. R. ASSgt
Pope, R. E. ASSgt
Stroup, G. S. ASSgt
Stubbe, H. F. ASSgt
Valentine, I. R. AGySgt

2045

Duncan, E. D. SSgt
Ketring, W. R. AGySgt
Rosta, S. J. ASSgt

2050

Hedrick, J. P. GySgt
Schlendrop, W. C. AGySgt

2602

Nelson, D. L. Capt.
Raymond, D. SSgt
Taylor, T. F. AGySgt

2715

Acosta, L. ASSgt
Fischer, G. A. ASSgt
McNutt, P. V. AGySgt
Piontek, E. Capt
Riggs, R. K. ASSgt
Russell, R. S. AGySgt
Sutherland, F. R. ASSgt

3010

Bashnagel, W. T. ASSgt
Clark, J. A. ASSgt
Coyle, E. J. SSgt
Craig, A. L. Capt
Hougaard, B. L. ASSgt
Hurley, D. J. ASSgt
Larue, B. B. ASSgt
MacFarlane, R. W. ASSgt
Montana, D. W. ASSgt
Mueller, B. L. ASSgt
O'Dell, D. O. ASSgt
Redican, T. E. AGySgt
Sapp, G. O. ASSgt
Tidwell, E. D. ASgt
Tunison, T. E. ASSgt

3015

Clinch, R. S. ASSgt

3020

Gurney, J. R. SSgt
Innerarity, V. E. SSgt
Paquette, J. R. AGySgt

3025

Baker, P. R. AGySgt

3030

Lightly, R. W.	ASSgt
Smith, W. C.	ASSgt
Wiese, J. J.	Capt

3035

Krieger, E. T.	ASSgt

3060

De Meo, A. C.	AGySgt
Kopp, R. S.	AGySgt
Merry, B. E.	AGySgt
Ross, R. L.	ASSgt
Waldenville, A. W.	ASSgt

3090

Geddes, R. T.	ASSgt
Whisler, T. L.	ASSgt

3095

Lott, L. J.	AGySgt
McWhorter, R. J.	ASSgt

3102

Folsom, C. W.	AGySgt
Martin, A. D.	AGySgt

3202

Arnold, B. T.	ASSgt
Fager, W. P.	AGySgt

3302

Gray, E. T.	ASgt
Perz, V. J.	ASSgt
Stratum, W. F.	ASgt

3402

Doyle, D. R.	AGySgt
King, S.	AGySgt
Maurl, E. A.	AGySgt
Renschling, R. R.	ASSgt

3510

Austin, J. D.	ASSgt
Filo, W. R.	ASSgt
Goehring, J. A.	AGySgt
Hazlett, D. L.	ASgt
Lee, J. N.	ASSgt
Long, C. E.	ASgt
Miller, R. D.	ASgt
Murphy, W. J.	ASgt
Wood, E.	ASSgt
Worley, R. L.	ASSgt

4002

Claus, R. J.	ASSgt
Eckersen, F.	SSgt
Tobias, A. S.	ASSgt

4102

Golden, J. J.	ASgt
Hicks, B. E.	ASSgt
Perry, L. E.	ASSgt

4106

Chance, J. M.	ASSgt
Cline, M. G.	AGySgt
Georgia, B. J.	AGySgt

4130

Cilles, R. C.	ASSgt
Johnson, K. E.	ASSgt
Rodgers, J. H.	ASgt
Scaplehorn, W. E.	ASSgt

4302

Driscoll, W. F.	ASSgt
Omdahl, W. H.	GySgt

4602

Humphreys, A. A.	ASgt
Simpson, B. E.	ASSgt

4915

Mucci, A.	ASSgt

5502

Yamaguchi, J. T.	ASSgt

5802

Canonico, J. A.	ASSgt
Dickson, T. O.	AGySgt
Hanna, R. J.	AGySgt
Henderson, J. R.	ASSgt
Kuchinsky, P.	ASSgt
Newman, R. D.	SSgt
Noonan, W.	ASgt

6402

Fifer, B. J.	AGySgt
Maguire, P. B.	ASSgt
Richards, D. W.	Capt
Roberts, M. R.	ASSgt

6406

Bowen, E. A.	AGySgt
Doran, B. R.	AGySgt
Duncan, D. A.	SSgt
Fenwick, G. W.	AGySgt
Gardner, T. R.	AGySgt
Garibay, A. F.	ASSgt
Gibson, E. L.	ASSgt
Grose, L. R.	ASSgt
Harrison, R. C.	ASSgt
Hiester, W. A.	AGySgt
Humm, R. E.	AGySgt
James, F. L.	AGySgt
Johnson, J. A.	AGySgt
Kelly, J. R.	ASSgt
Kennedy, R. L.	AGySgt
Keroack, B. W.	AGySgt
Keyes, R. C.	AGySgt
Nicolai, P. W.	ASSgt
Oakley, H. C.	ASSgt
Weber, D. C.	SSgt

6502

Downes, E. A.	AGySgt
Lisenby, W. E.	AGySgt
Nyenbrink, H. W.	ASSgt
Shank, P. S.	AGySgt

6602

Ashe, T. D.	ASSgt
Capelle, P. W.	ASSgt
Delbert, G. A.	ASSgt
Dickerman, W. N.	ASSgt
Drawdy, J. C.	SSgt
McConnell, H. V.	SSgt
Pierse, D. E.	ASSgt
Sowders, J. E.	ASSgt
Thrailkill, A. B.	AGySgt
Underwood, H. L.	ASSgt
Weatherly, R. E.	AGySgt
Williams, J. C.	SSgt

6708

Bracken, W. D.	Capt
Clem, K. W.	AGySgt
Dalbey, R. M.	Capt
Davis, R. Y.	ASgt
Gronert, K. A.	AGySgt
Harry, L. E.	ASSgt
Myers, P. A.	AMSgt
Sawyer, J. F.	ASSgt
Smith, C. W.	1st Lt
Kellogg, W. D.	Capt

6709

Brandt, G. H.	ASSgt
Brown, C. O.	ASSgt
Ferguson, R. E.	ASSgt
Fetchko, J. B.	ASSgt
Gabriel, B. D.	ASSgt
Gwaltney, W. J.	ASSgt
Hurd, A. D.	Capt
Kenner, G. F.	ASSgt
Lange, F. W.	1st Lt
Miles, J. J.	AGySgt
Morgan, R. G.	1st Lt
Ockuly, E. J.	Capt
Stowell, J. H.	AGySgt
Taylor, C. C.	AGySgt
Welton, J. H.	SSgt
White, L. L.	ASSgt

6720

Ashmore, K. D.	ASSgt
Favreau, R. D.	AGySgt
Paschen, C. W.	ASSgt

6730

Allen, K. E.	AGySgt
England, J. H.	ASSgt
Milliman, G. P.	SSgt
Steele, J. M.	ASSgt
Stone, J. W.	ASSgt

6802

Champion, G. W.	AGySgt
Peltzer, B.	ASSgt
Sakert, J. T.	ASSgt

7102

Hollis, J. F.	ASSgt
Loof, C. J.	ASSgt

Revocation of Orders

Millican, P. F.	3402
Ret Orders	

Transfers

Greene, R. W.	2710
Fr ForTrps FMFPac	
To Huntsville, Ala	By19Feb
Inman, R. L.	4130
Fr HQMC	EDWDMar
To MCB, CamLej	
Okonek, M. V.	3302
Fr MCB CamLej	EDWDFeb
To 2dMAW	
Smith, P. H.	2502
Fr ForTrps FMFLant	
To Huntsville, Ala	By19Feb
Taylor, J. B.	2710
Fr 1stMarDiv	
To Huntsville, Ala	By19Feb
Welch, W. F.	3302
Fr MCRD, SDiego	
To Ft Lee, Va	By23Mar

Retired

Blough, C. D.	2010
MCS, Quant	ED31Jan
Mats, E. G.	0130
9thMCRRD	ED29Feb

NEWS

in Names

In the Pentagon one Marine general retired and another has been appointed to the staff of the Secretary of Defense. **BGen James D. Hittle (Ret)** was selected by **Secretary Thomas S. Gates** to serve as Deputy Assistant for Legislative Affairs. Retiring after serving as Military Assistant to four successive Secretaries of Defense was **BGen Carey A. Randall (Ret)**. Replacing Gen Hittle as Legislative Assistant to CMC is **Col John H. Masters**. . . . Among selectees for Reserve promotions to Col are **Senator George A. Smathers** (D-Fla), **Representative Donald L. Jackson** (R-Calif), and **John R. Blandford**, Counsel for the House Armed Service Committee.

MajGen Marion L. Dawson will succeed USAF **MajGen Sam Maddux, Jr.** as Senior Member of the UN Military Armistice Commission in Korea in May. Gen Dawson now commands Air, FMFLant. . . . **BGen Odell Conoley**, ADC, 2dMarDiv, was selected to *Sports Illustrated* magazine's Silver Anniversary All-American Football Team. Gen Conoley is a graduate of Texas A&M College.

Four Marine aviators have been selected as exchange officers to serve with the RAF. They are **Capt Darrell E. Bjorklund, Capt Robert N. Hutchinson, Capt Michael P. Sullivan,** and **Capt Reese J. Woodard**. . . . **MarCad Charles E. Inman** became the first MarCad to solo at NAAS, Penascola. A student with VMT-18, he was one of the first cadets to enroll in the recently revived Marine Aviation Cadet program.

Two BOQs were recently dedicated at MCS, Quantico. One, a three-story structure that will quarter 150 unmarried officers, was named after **BGen H. B. Liversedge**. The second BOQ—for staff NCOs—was named in honor of **SSgt Edward Shuck, Jr.**, posthumous winner of the Medal of Honor in Korea.

LtGen Julian C. Smith (Ret) is serving as chairman of a joint planning committee for the Fleet Marine Force Concurrent Reunions, 24-26 June in Washington, D.C. The program will be open to Marine veterans of all six divisions and wartime allied units. . . . Letters written by ten Marines have won awards in the annual Freedoms Foundation contest. Third-place winners were **Maj Samuel L. Eddy, Jr.**, MCB, 29 Palms; **ASgt Martin H. Handelsman**, MCS, Quantico; **GySgt John T. McHugh**, 3/9, 3dMarDiv; **MSgt James F. Parker**, Army Artillery and Missile School, Ft. Sill, Okla.; and **LCpl Jean Tinnea**, MCB, Camp Pendleton. Fourth-place winners were **PFC Joseph A. LaCrosse**, NAB, Coronado, Calif., and **PFC Harvey M. Lescalleet**, Chicago, Ill. George Washington Honor Medal winners were **Capt Donald F. Bradley, Jr.**, APO #66, N.Y.; **Maj R. Dewees, Jr.**, 1stMAW; and **LtCol William F. Frank (Ret)**.

SECTION C (*To be completed in pen and ink by reporting senior*)

Considering the officer reported on in comparison with all other officers of the same grade whose professional abilities are known to you personally, indicate your estimate of this officer by marking "X" in the appropriate spaces below.

	NOT OBSERVED	UNSATISFACTORY	BELOW AVERAGE	AVERAGE	ABOVE AVERAGE	EXCELLENT	OUTSTANDING
16. PERFORMANCE OF DUTY (*Based on fact*)							
(a) REGULAR DUTIES							
(b) ADDITIONAL DUTIES							
(c) ADMINISTRATIVE DUTIES							
(d) HANDLING OFFICERS							
(e) HANDLING ENLISTED PERSONNEL							
(f) TRAINING PERSONNEL							
(g) TACTICAL HANDLING OF TROOPS (*U*							
17. TO WHAT DEGREE HAS HE EXHIB							
(a) ENDURANCE (*Physical and mental a*							
(b) PERSONAL APPEARANCE (*The trait o*							
(c) MILITARY PRESENCE (*The quality of*							
(d) ATTENTION TO DUTY (*Industry; the*							
(e) COOPERATION (*The faculty of worki*							
(f) INITIATIVE (*The trait of taking neces*							
(g) JUDGMENT (*The ability to think clea*							
(h) PRESENCE OF MIND (*The ability to t*							
(i) FORCE (*The faculty of carrying out*							
(j) LEADERSHIP (*The capacity to direct,*							
(k) LOYALTY (*The quality of rendering faithful and willing service, and unswerving allegiance under any and all circumstances*)							X
(l) PERSONAL RELATIONS (*Faculty for e*							
(m) ECONOMY IN MANAGEMENT (*Effectiv*							
18. Considering the possible Would you— ☐ NOT OBSERVED							
19. Indicate your estimate of NOT OBSERVED ☐ / UNSATI							

Marine Corps Air

HQ SQDN MCAS, QUANTICO
AES 12, MCAS, QUANTICO
HMX1, MCAS, QUANTICO

Marine Air Reserve

MARTD, MARTC, GLENVIEW
MARTD, MARTC, GROSSE ILE
MARTD, MARTC, NORFOLK
MARTC, OAKLAND
MARG 1, BROOKLYN
MARG 3, MINNEAPOLIS
MARG 12, GLENVIEW
MARG 21, OAKLAND
VMF 133, OAKLAND
VMF 141, OAKLAND
VMA 213, JACKSONVILLE
VMA 222, GROSSE ILE
VMA 234, MINNEAPOLIS
VMF 244, OAKLAND
VMA 543, GLENVIEW
VMA 611, GLENVIEW
MACS 21, SOUTH WEYMOUTH
MACS 22, GLENVIEW
MACS 25, OAKLAND
HMR 763, GLENVIEW
HMR 766, MINNEAPOLIS
HMR 767, NEW ORLEANS
HMR 769, OAKLAND
HMR 773, GROSSE ILE

2dMarDiv

CO "A", 1ST BN, 2D MARINES
CO "B", 1ST BN, 2D MARINES
H&S CO, 3D BN, 2D MARINES
CO "I", 3D BN, 2D MARINES
CO "K", 3D BN, 2D MARINES
CO "L", 3D BN, 2D MARINES
CO "M", 3D BN, 2D MARINES
CO "B", 1ST BN, 6TH MARINES
CO "D", 1ST BN, 6TH MARINES
2D RECON BN
H&S CO, 1ST BN, 8TH MARINES
CO "A", 1ST BN, 8TH MARINES
CO "B", 1ST BN, 8TH MARINES
CO "C", 1ST BN, 8TH MARINES
CO "D", 1ST BN, 8TH MARINES
H&S CO, 2D BN, 8TH MARINES
HQ BTRY, 2D BN, 10TH MARINES
BTRY "D", 2D BN, 10TH MARINES
BTRY "E", 2D BN, 10TH MARINES
BTRY "F", 2D BN, 10TH MARINES
BTRY "H", 3D BN, 10TH MARINES
BTRY "I", 3D BN, 10TH MARINES
BTRY "K", 4TH BN, 10TH MARINES
BTRY "L", 4TH BN, 10TH MARINES
CO "A", 2D PIONEER BN
CO "B', 2D PIONEER BN
CO "C", 2D PIONEER BN
CO "A", 2D AT BN
CO "B", 2D AT BN
CO "C", 2D AT BN
2D LT SPT CO, 2D SVC BN
3D LT SPT CO, 2D SVC BN

3dMarDiv

CO "I", 3D BN, 3D MARINES
CO "L", 3D BN, 3D MARINES
CO "M", 3D BN, 3D MARINES
BTRY "F", 2D BN, 12TH MARINES
CO "A", 3D PIONEER BN

Force Troops

3D 155 MM HOW BN TOWED
CO "A", 3D TK BN
CO "B", 3D TK BN
CO "C", 3D TK BN
BTRY "D", 1ST MED AA MSL BN
BTRY "E", 1ST MED AA MSL BN

Marine Corps Schools

HQ CO, HQ BN, MCS
CAS CO, HQ BN, MCS
CO "A", HQ BN, MCS
CO "B", HQ BN, MCS
CO "C", HQ BN, MCS
CO "D", HQ BN, MCS
SUP CO, SVC BN, MCS
H&S CO, SDT, MCS
ADB, SDT, MCS
CO "A", SDT, MCS
COM CO, SDT, MCS
BASIC SCHOOL, MCS
H&S BN, BASIC SCHOOL, MCS
STUDENT CO, BASIC SCH, MCS
JR SCHOOL, MCS
T&T REGT, MCS
MCLFDC, MCS
RIFLE RANGE DET, MCS

Security Forces

MB, SASEBO
MB, NAD OAHU
MB, NAS ATSUGI
MD, NS TRINIDAD
MB, NAPLES
MB PORT LYAUTEY
MB, ROTA SPAIN
MB, ROOSEVELT ROADS
MB, SEAL BEACH
MB, CONCORD

SECTION D (*To be completed by reporting senior in pen and ink.*) *Record in this space a concise appraisal of the professional character of the officer reported on.* (*This space must not be left blank.*)

During 1959 these units had 100% officer membership in the Marine Corps Association!

SECTION E (*To be completed by the reporting senior*)

I CERTIFY that to the best of my knowledge and belief all entries made hereon are true and without prejudice or partiality.

Mike McCorps — 1/1/60

(*Signature of reporting senior*) (*Date*)

SECTION F (*To be completed by officer reported on*)

I have seen this completed report. (*Check One*)

☐ I HAVE NO STATEMENT TO MAKE

☐ I HAVE ATTACHED A STATEMENT

(*Signature of officer reported on*) (*Date*)

SECTION G (*To be com* ... *reviewing officer*)

NAME OF REVIEWING OFFICER

DUTY ASSIGNMENT INITIALS

"Be a member, Get a member"

U. S. GOVERNMENT PRINTING OFFICE : 1957 O-421001